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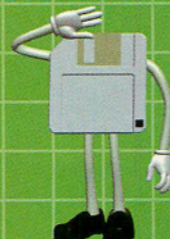
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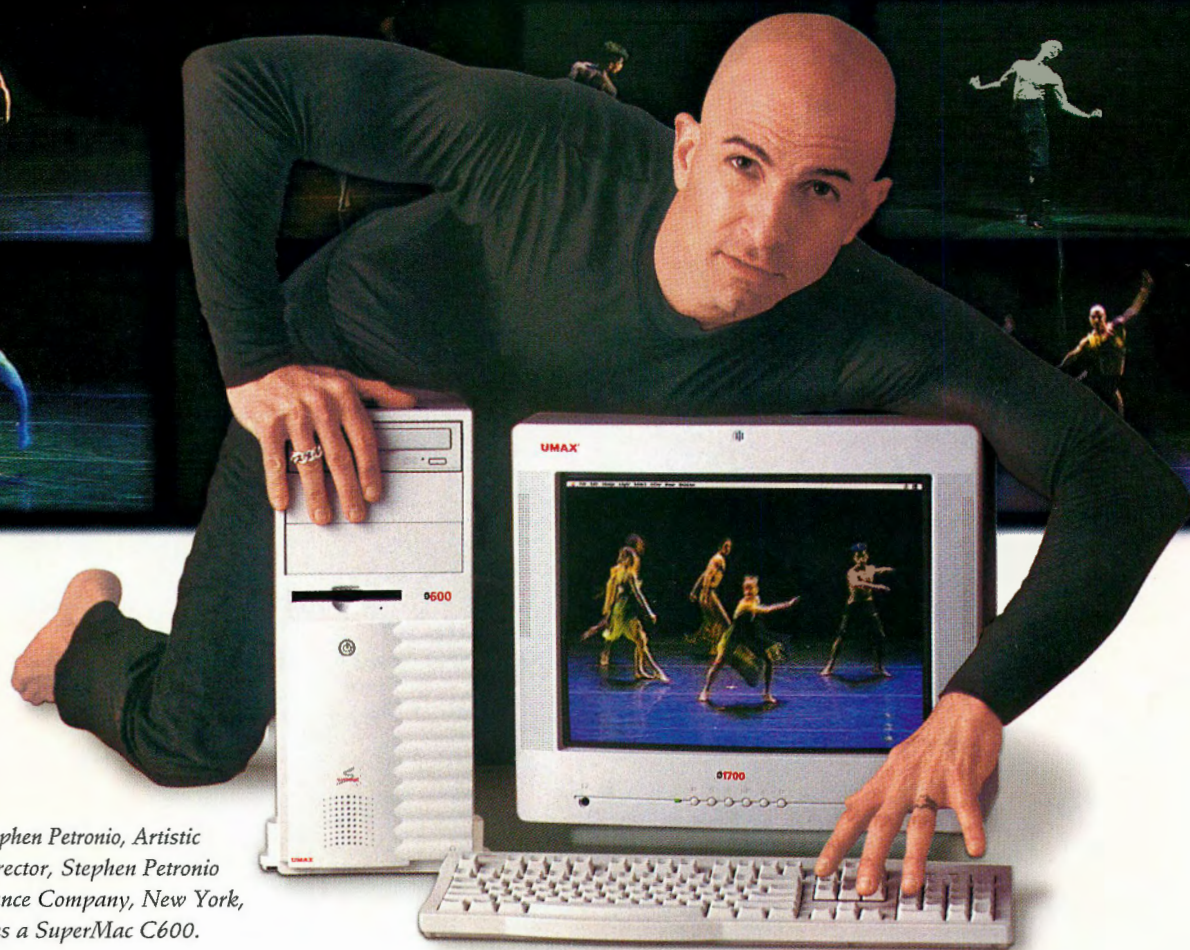
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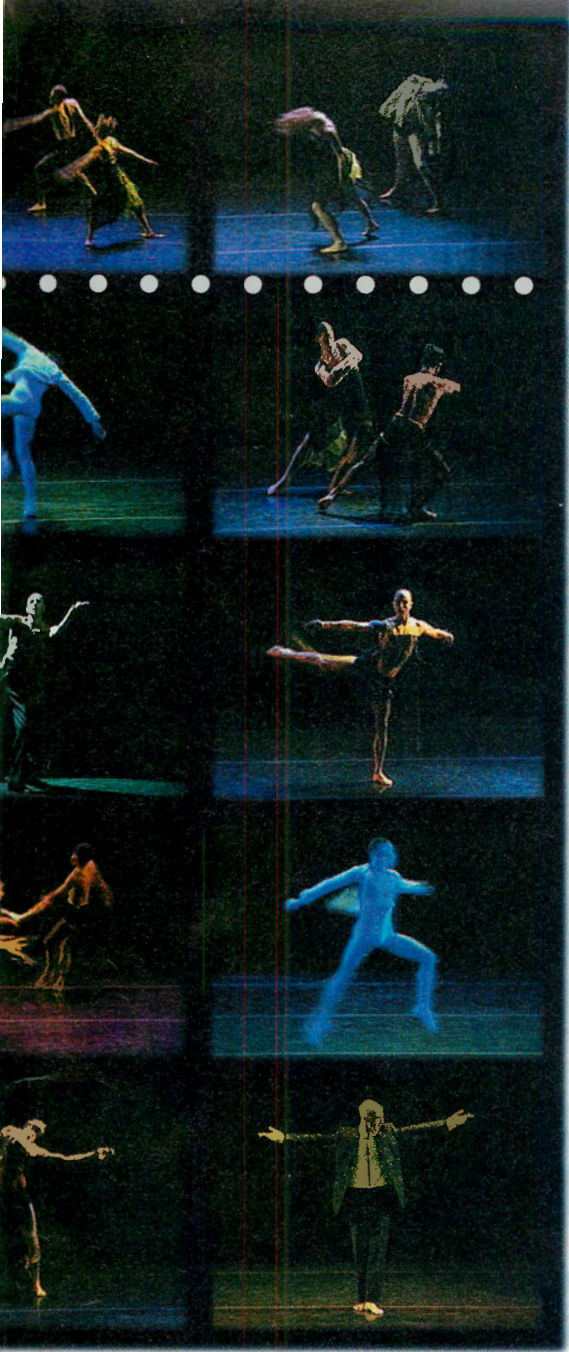
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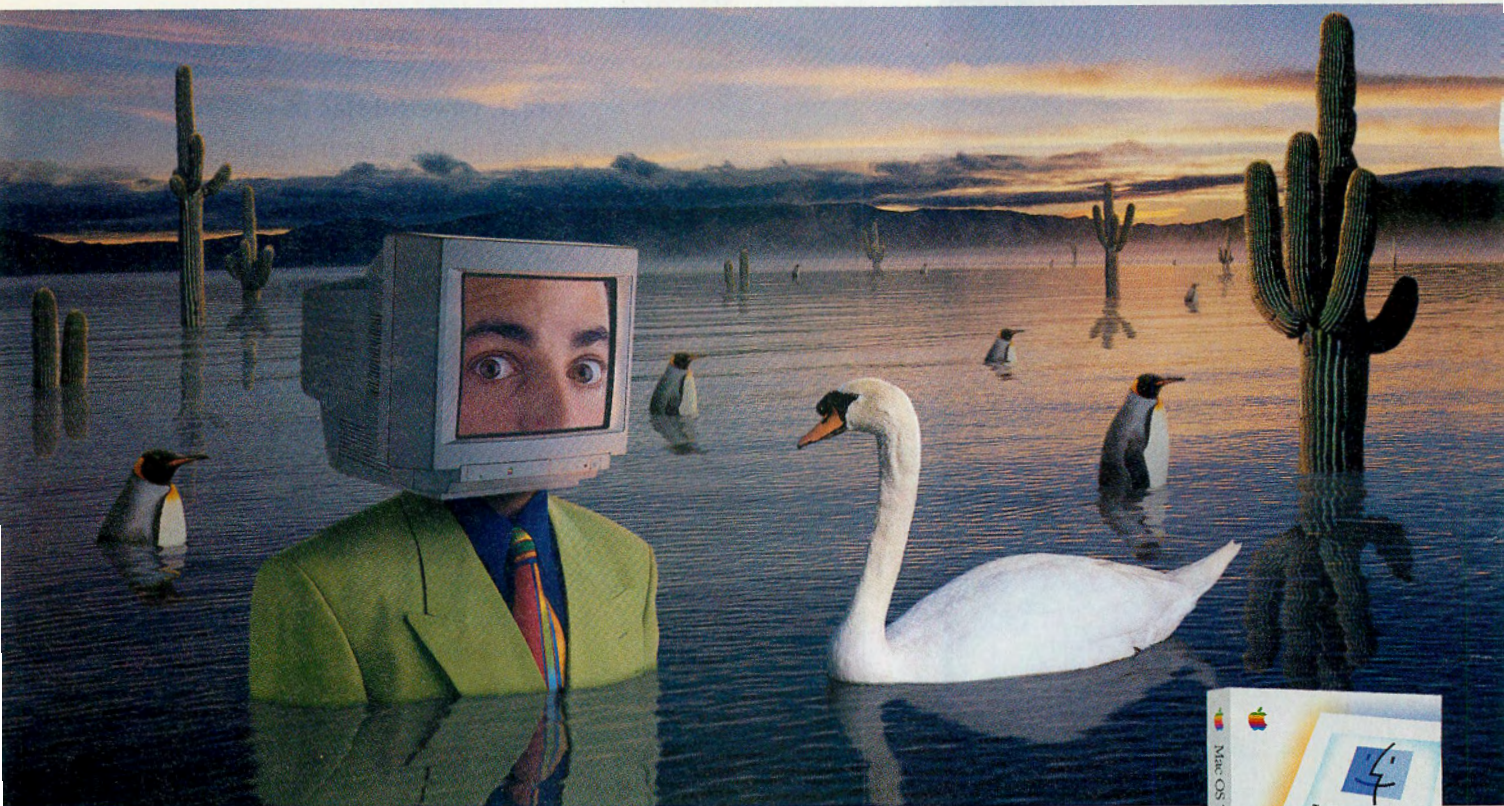


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This is your
brain on Mac.
Any questions?

MAY 1997

Mac ADDICT 9

highlights

32 Super-Smart Desktops

No matter whether you're a list maker or an unstoppable slob, we can help you get your desktop under control. Find out how to organize folders and files, manage menus, create cool desktop patterns, and more. **BY KATHY TAFEL**

40 ICONtemplation

Believe or not, there is an art to making beautiful icons. Our resident iconfabulator teaches you how to add perspective, eliminate jaggies, create shadows, and more. **BY MARK SIMMONS**

46 Welcome to MacAddict Lab

It's not your everyday lab. Nope, far from it. Take a behind-the-scenes peek at how we *really* test products. **BY D. D. TURNER**

48 Ropin' In Extensions

Ever opened that Extensions folder in your System Folder? Scared by what you saw? It has never been easier to take control of those extensions, thanks to our hands-on guide. **BY DAVID REYNOLDS**

54 This Old Mac

There's a right way to upgrade and a wrong way. We show you the right way to upgrade a Mac IIci, IIfx, and IIsi. **BY T. KELLEY BOYLAN**

how to

84 Use MacsBug

Learn eight things you can do with this underused utility, including recover from crashes, discover the meaning of error messages, and salvage files.

88 Put Up a Web Page Fast

The clock is ticking. You've got less than three minutes to put up a Web page. What do you do?



I think Icon! I think Icon! ICON!



OK, he looks a little funny, but he's harmless. Just pray for the Macs in the lab.

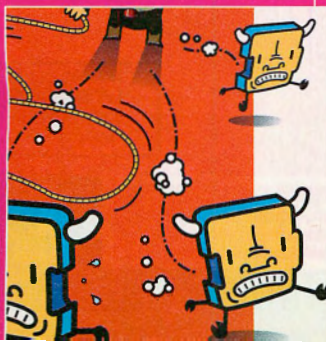


Yippee-I/O-Kai-ay!
There ain't room in
this town for two
processor enablers.

Our *Superphat* brain and all its icon friends were created by Olivier Wolfson, on both a Mac and Silicon Graphics machine.



Say good riddance
to bad rubbish.



What gives? Haven't those advanced alien civilizations discovered cutlery yet?



every month

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Thousands of desktop patterns, icons, and customization utilities jam-packed onto The Disc. Plus, a contest to win Command & Conquer, original music, and a new interface!



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22

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Mac ADDICT

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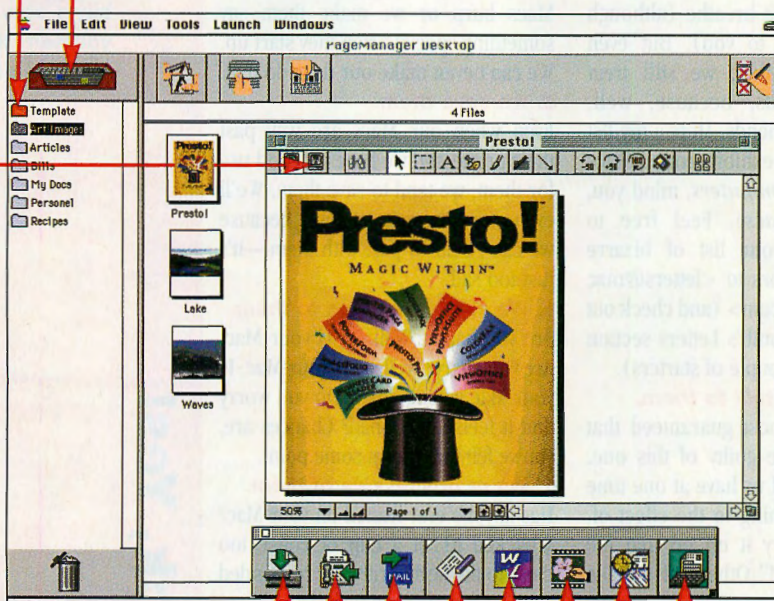
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editor's note

It's OK to talk to your Mac. We all do it—probably more than we admit.

Let's face it, folks, the Mac is a hunk of metal (OK, and plastic, too). The point is that the Mac is just not alive. There's no way you can make it breathe (although you can make it talk to you). But even though we all know that, we still treat our Macs like friends, because, well, because they are our friends. Here's my list of bizarre behaviors we exhibit around Macs

(not *computers*, mind you, but *Macs*). Feel free to send your list of bizarre behaviors to <letters@macaddict.com> (and check out this month's Letters section for a couple of starters).

1. We talk to them.

It's almost guaranteed that you are guilty of this one.

Most of us have at one time or another said something to the effect of, "Come on, baby! Hurry it up on that file transfer! You can do it!" Others of us take this to the extreme—saying hello to our Macs each morning, asking how they are feeling, and maybe even having lengthy conversations about things such as the meaning of life or why relationships suck.

2. We name them.

Well, heck, the Mac even encourages us to do this! No one wants to go through life with an Mac icon named "Hard Drive." So we name the icon and then hoist that personality onto the Mac. And that way we have an easier time talking to our Macs.

3. We decorate them.

We can't just leave well enough alone. My Mac wears a hat. The Plus I used to have wore headphones (it was handy to store them there and, besides, it looked cute. And there's no question that we're crazy about decorating the Mac's desktop.

4. We make them produce sounds.

Not just any sound. We make our Macs burp or we make them say something special when they start up. We can't even make our dogs do that.

5. We save them.

Even when our Macs are way past their prime and we have no good use for them, we tend to save them. We'll even store them in a closet because we can't bear to part with them—it's just too sad.

6. We assign feelings to them.

Are you happy? Well, so is your Mac. Are you angry? Well, so is your Mac. Is your Mac getting dusty? Do you worry that it feels abandoned? Chances are, you've felt that way at some point.

7. We're possessive of them.

Has anyone ever leaned on your Mac? Whacked it? Set a cup of coffee too close to the keyboard? Ever responded with, "What the heck are you doing? Don't *do* that! That's my Mac!"? I have.

Why is it that Mac owners feel so close to their Macs? Why don't most PC owners feel the same kinship? I think it has something to do with the very beginnings of the Mac. Remember the first time you saw a Mac start up? It smiled at you! It made a happy noise! From that moment on you were hooked.

PC owners don't have the same experience. When you boot up a PC, you first get a long list of text—diagnostic checks, information on system specifications, and the like. (It's basically the stuff that the ROM does made visible). Then you get the Windows logo. No smiling face there. That's a startup sequence designed to make you remember that you are dealing with a machine, not a friend.

And that's the whole problem. A PC, a plain old PC running Windows, is just a machine, a computer, maybe personal, maybe not. A Mac, well, it's a Mac. It's my Mac. It's Mac.

—Cheryl England

Most likely, someone you know has asked you recently if it's OK to buy a Mac. Or maybe you have asked yourself the same question. Well, folks, we say emphatically, "Yes!"

Yes, it's OK. Apple is working rapidly to fix its problems. The company is cutting work force in order to be the lean, mean, PC-fighting machine of yesteryear. Two new PowerBooks have shipped and they are winners, competing head on with Windows-based laptops according to specifications and prices. Price cuts on desktop Macs and clones are also in full force, making Macs comparable in price to PCs.

Apple has also made it clear that you don't need to worry that any Mac you buy today will be an orphan when Rhapsody (the OS that will be a combination of the Mac OS and OpenStep) ships sometime next year. Rhapsody will run on currently shipping Macs and will be able to run current Mac OS applications. In addition, Apple will continue to develop the current System—expect an exciting release, code-named Tempo, this July.

Meanwhile, the major developers are still supporting the Mac and creating new programs. Adobe, Connectix, Deneba Software, Fractal Design, Kensington, MacPlay, Macromedia, MetaTools, Metrowerks, Microsoft, and many other companies show no signs of slowing down or suspending their support for the Macintosh.

There are plenty of other reasons it's still OK to buy a Mac. The Mac is still an elegant, smooth system, and with System 7.6, it is very stable. The PowerPC chip just keeps getting faster and faster, and can still hold its own against the Pentium chip, often even beating it. There's plenty of shareware and freeware, user groups are healthy, and the Web offers a lot of helpful advice for Mac owners.

And, of course, Steve Jobs and Steve Wozniak are back.

Is It Safe to Buy a Mac? Heck, Yes!



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you saw a Mac start up?
It smiled at you! It made a
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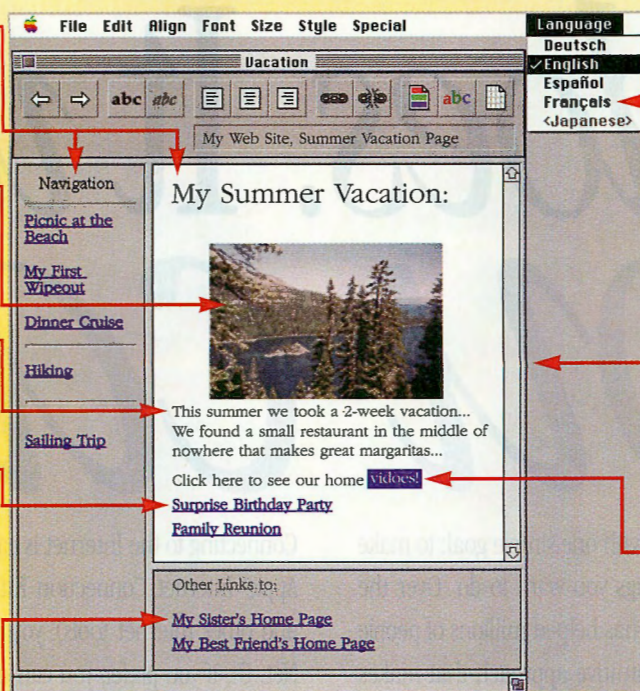
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The Mac OS. It does. It will. *you can.*

At Apple, we started with one simple goal: to make it easier to do the things you want to do. Over the years, the Macintosh® operating system has helped millions of people do just that, by providing a simple, intuitive approach that makes all aspects of computing easier. But even more impressive than what a Macintosh can help you do today is what it will help you do tomorrow.

It does more than ever.

So what does the future of the Mac® OS look like? For a glimpse, check out our newly released Mac OS 7.6. It's faster than ever before—so you can start your Mac, launch applications, save files and print up to 40% faster.

Connecting to the Internet is easier too. With the latest version of the Apple® Internet Connection Kit (it includes Netscape Navigator™ 3.0 and other Internet tools), you're one step away from accessing the Net. Or, if you prefer, you can use AOL or our own Apple Cyberdog™—they're included with Mac OS 7.6 along with TCP/IP and PPP.

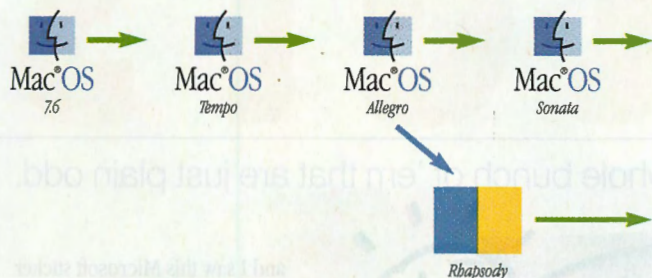
Mac OS also has the latest version of Apple QuickTime®, the industry standard for multimedia creation and delivery. And it makes upgrading easier: with one CD-ROM and a streamlined installation process.

Intrigued? Then you'll love what comes next. Because we're hard at work on the next version of the Mac OS, code-named Tempo. Right from the start you'll notice a new look, with beveled buttons, icon drop shadows and other 3-D enhancements to the desktop. Tempo will dramatically improve system responsiveness by incorporating multitasking, multi-threaded functionality and native PowerPC™ capabilities directly in the OS. So you can run multiple applications more smoothly, and launch new applications while files are copying in the background. Tempo extends our Internet capabilities with easy



The Mac you buy today won't be obsolete tomorrow. Because Rhapsody will be compatible with all currently shipping Mac OS systems.

The Mac OS Report. One in a Series.



Apple's complementary operating systems—Mac OS and Rhapsody—allow you to choose the system that best meets your needs. They also allow you to decide when it's time to make the transition.

setup, personal web sharing and built-in Java.™ And it will help you be more organized, by reducing on-screen clutter with spring-loaded folders and pop-up windows for frequently used items.

Of course, Tempo also paves the way for further updates to the Mac OS. Because there's much more to come.

It will be the NeXT thing.

When we began defining a new software architecture that would take us into the future, we had two clear objectives: to enhance our traditional strengths, and to create an operating system that would leapfrog the competition, setting standards into the next century.

Enter NeXT.® By acquiring NeXT Software and adopting their kernel-based architecture, Apple can offer advanced system services such as true multitasking, protected memory and symmetrical multiprocessing. We have also strengthened our position in client-server and Internet/Intranet markets. And NeXT's object-oriented development environment and powerful tools such as WebObjects™ and Enterprise Objects Framework™ give us clear advantages in the creation of new solutions.

Merging NeXT and the Mac OS will create a next-generation OS that will give our competitors something new to catch up to. It will be an OS that helps developers create breakthrough applications by allowing greater experimentation and efficient reuse of code. It will include the best of our graphics technologies, such as ColorSync® and QuickDraw® GX. And we plan to adopt the Adobe® PostScript® imaging model as well. It will fully support the QuickTime Media Layer. It will provide industrial-strength reliability, performance and ease of use. And it will be an ideal platform for publishing, multimedia and Internet applications yet to come.

What is the name of this new OS? Its code name is Rhapsody.

It will be an Apple thing.

Rhapsody will leave other operating systems in the dust. But not Apple customers. To start with, Rhapsody will enhance the general look and feel of today's Mac OS interface. It will support all currently shipping Mac OS-based systems. It will run the vast majority of existing Mac OS applications by hosting the complete Mac OS on the Rhapsody kernel.

In short, Rhapsody will run your existing applications and utilities, read your files, recognize your current fonts and extensions and play your movies and sounds. Rhapsody will deliver the kind of technology you expect from Apple. The kind of technology that appeals to anyone who requires the highest performance for publishing, Internet and multimedia authoring, and scientific and technical work. The kind of technology that appeals to people who like to, well, get things done.

You can.

What does all this mean? It means you can do everything you're used to doing now, plus a few things you might not yet imagine. It means you can buy a Mac today and not worry about its compatibility with Rhapsody tomorrow. It means Rhapsody won't just be a new way to use a *Macintosh*—it will define an entirely new way to use *computers*. You can learn more by visiting us at www.macos.apple.com or by calling 800-538-9696 for information by fax.



The world's most intuitive and easy-to-use operating system will remain just that. With regular system updates and enhancements, the Mac OS will take you well into the future.



The acquisition of NeXT provides Apple with additional strengths in performance, reliability, network management and rapid application development.



Mac OS 7.6 extends Apple's leadership in graphics and multimedia by bringing together the latest versions of Apple QuickTime technologies, collectively known as the QuickTime Media Layer.



Adobe PostScript

Apple intends to adopt the Adobe® PostScript® imaging model for Rhapsody and transfer the best of our existing graphic technologies, including ColorSync and QuickDraw GX.





letters

Serious letters, fun letters, and a whole bunch of 'em that are just plain odd.

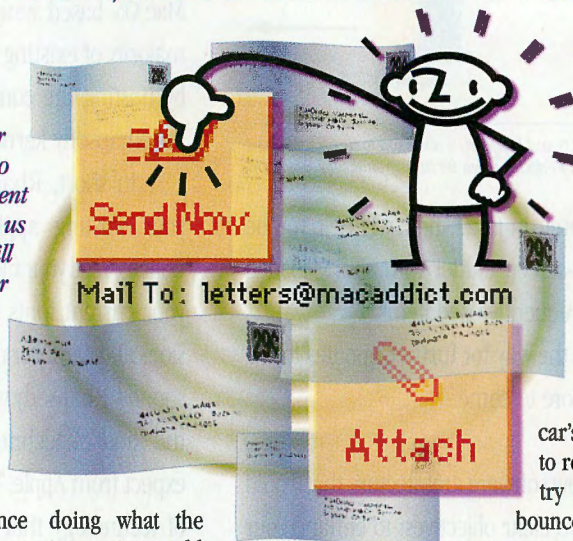
This Month

We love your stories, your comments, your jokes. We only wish we had more space to run all of your marriage proposals, indulgent praise, and sensitive criticism. Write to us at: MacDudes, MacAddict, 150 North Hill Drive, Suite 40, Brisbane, CA 94005, or send e-mail to <letters@macaddict.com>. For CD-ROM or subscription queries, please call our customer service department at 415-468-2500.

We Bet You Hear VOICES, TOO

I've had a terrible time trying to convince my Mac (named Consciousness, for obvious reasons) that he DOES NOT have Ebola Zaire, that only humans get it, but he won't listen. He really digs your CD-ROMs and is a subscriber, so maybe he'll listen to you. I knew I never should have SCSIed that Robotron arm. —GEORGE W. CRAIG, DALTON, GA

I was flipping through the January issue when I saw a cool little apple staring at me through sunglasses. I thought to myself, "Jeez, wouldn't it be great if my Apple menu was wearing shades?" So I sat down and started



and I saw this Microsoft sticker on the bumper—of course it was upside down and half of it was hanging off the edge. Also, all the "witnesses" were the same yuppies I always skew, so it leads me to believe it was a setup, an attempt to quiet the Mac Revolution, but they failed to take into account just how thick my head is. Well, I have the pleasure of knowing my head broke the car's window, and it's going to cost big to replace. See, just like Apple, you can try taking me out, but I'll always bounce back (literally), and keep going stronger and faster than ever. Long Live Apple. Long Live the Mac! —REUBEN E. REYNOSO

ASK A SILLY QUESTION...

I feel that you all at MacAddict have all the answers. Question: Why doesn't the Close button in elevators work? —PAUL WHARFE, CLARION, PA
It's broken.

What happens after the Power Mac 9500? Will there be a Power Mac 15953/533? Too many numbers!!!! —ANDREW SPIRK
Why yes! How'd you know? There will be a Power Mac 15953/533! And, hey, at least it's only eight numbers!

I was reading page 11 of the December 1996 issue when I came across the caption of the picture in the top right corner. It reads exactly this:

SO WE GOOFED. Before (left) and after (right). They say that confession is good for the soul.

Notice anything? Anything at all? —BRYAN A. LATNER
Hmmm. Yes, we do. You misspelled "accross." Is this a test?

TAKE THIS, YA PUNK

By the way, Matthew P., age has won out yet again...my high score on Apeiron: 1.8 million. —TRIPP McNAIR, AGE 30, DALLAS, TX

doing what the instructions told me to when I realized that I had Aaron running, and that already changes the look of the apple. I figured my Mac would just have to live life a little on the wrong side of the '50s "cool" image. But my Mac pleaded and begged for me to make it cool. What's a guy supposed to do? So, mostly to get my Mac to stop crying and start working, I dragged a copy of my Aaron extension over my ResEdit icon and *voilà!* There was the exact same file as the one in my System. So I changed that file, gave my Mac a pair of shades, and went to bed. Dammit! Once again I was having too much fun with my Mac to get any work done. —ERIC LEHTO

EVER HEARD OF BIKE HELMETS?

S'up people!? Well, I had a crash yesterday, but it wasn't on my Mac. I crashed on my bike while on the job. I was racing down Grand Avenue, with my Mac on my mind, when suddenly, this car pulls out of a parking space, and then, just as suddenly, brakes for no apparent reason. Well, I screamed and tried to slam on the brakes, but it was too late. Like a Wintel machine trying to run an app, I crashed—big time. I slammed into his bumper, flipped over onto his trunk, slammed my head into his rear window, and then tumbled to the ground. Then he just peeled out, without even getting out, and there were no witnesses—the 20 people standing around neither saw nor heard anything. All I know is that the car was a Beemer,



GET ON,
GET ACTIVE.
Talk to us
and talk to
other Mac
addicts on
the Web site.

RECENTLY SIGHTED LAST OCTOBER...

...I ran my first marathon. Beforehand, I was contemplating which shirt to wear. The choice was obvious. Does this entitle me to free advice, such as why my PowerBook 5300c



sucks and why I am, nonetheless, an Apple devotee?

—CHARLES BUKI
(SEEN AT AGE 40
IN THE PHOTO BUT
IS ACTUALLY 33)
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letters

3.0 will run on the Plus, you can't use the disks to install it directly on your Plus. You have to connect your external drive to a newer machine (with a high-density drive) and install the software.

4) Most modern hard drives are too fast to run reliably on the Plus. Even if you format them with a 3:1 interleave, they refuse to boot on a regular basis. The largest drive I have gotten to work is a Maxstor 350. Quantum 1.2GB—forget it, it will crash in a day. The Plus also uses an unusual SCSI termination power configuration that requires the drive to supply its own terminator power. The drive you use has to be able to be jumpered for this mode. Old 40MB or 80MB drives work best.

5) The Mac Plus serial port is limited to 9600 baud, so Internet e-mail is OK, but forget surfing the Web. I got Mosaic to work (slowly), but MacWeb consistently crashed. The school board I work for (I'm a tech) still has a couple hundred Mac Pluses in use, while all the DOS boxes older than a 286 have long been pulled from service. Not bad for a computer that, in human terms, is 120 years old. —FRED LICHOTA, MEDIA TECHNOLOGY DEPARTMENT, SCHOOL DISTRICT 36, SURREY

Silly Us

In your February issue (p53), you ask us to contemplate in a Zen-like manner how to take a picture of a digital camera to reach nirvana within hours. It took me less than a minute. Take a picture in a mirror, you silly people! OK, what do I win? —BRIAN POPOVICS

There must be a mistake in the e-mail address listed to receive free Apple decals

(Feb/97, p28). You list it as: <s.line.order@apple-link.apple.com>, but this does not work. Help! I just gotta get some free Apple decals for my car so I can look really—COOL! —MARLA HALL, PRESCOTT SCHOOL DISTRICT, WI

Aw, heck. We were just trying to have a little fun with hyphens. The correct address is <s.line.order@applelink.apple.com>. If that doesn't work by the time this is published, try it without the "applelink" part.

WHAT A SAINT!

Speaking of bozo salespeople who say you are crazy for wanting a Mac, I was the only sane one in my computer department at a popular retailer. I was the only one who knew what I was talking about when demonstrating a Mac. The other computer companies paid a higher commission than Apple did, so those computers were automatically the best deals in the store in the eyes of the other salespeople. I, on the other hand, was able to sell with a clean conscience, and I developed an impeccable taste for MACaroni & cheese and water. —DAVE HENDERSON, RENTON, WA

SIGN OFF

ADAM SHALABY
TORONTO, ONTARIO, CANADA, EARTH, UNIVERSE, GALAXY...

STEVE ZYSKIEWICZ
WHERE'S MY LIQUID PAPER? WHERE'S MY LIQUID PAPER?

DAVE "SPAM IS GOOD" GUILFORD (AKA DUMBFUNCTIONS)

YOU KNOW YOU'RE A MAC ADDICT WHEN...

...you buy your grandfather 31W, 36L pants instead of the correct 36W, 31L ones, and you tell him that he will have to use landscape instead of portrait view. MOOF!
—KEVIN CAGLE

...you start naming your children after Macintosh models. For example, "This is my daughter, Performa." —CHRIS CLARKE

...your son asks you why he has to clean up his room, and you tell him it's to free up hard disk space. —PATRICK ALBRECHT

...you make your kids look for Easter eggs on your Mac instead of outside on Easter morning. —ANDREW HENDRICKX, WEST BOYLSTON, MA

...you wonder where to stick the paper clip to remove the tape that's stuck in the VCR. —MICHAEL RITCHIE, TEMPE, AZ

"WAV blew me away."

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"WAV is the spiffiest word processor to come along in several years. It's elegant and intuitive, and its integrated Internet services are a godsend."

— Mac Addict, March '97

drag and drop capabilities. With WAV, simply grab and place nearly anything you want to

utilize in your documents—period. Java™ Applets, URLs, component parts, Netscape™ plug-ins, e-mail text files, Word™ and WordPerfect® files, HTML files, PICTs, GIFs, JPEGs, graphs, sound files and QuickTime™ movies all become integrated parts of WAV documents—not just links to system-consuming, traditional applications.

Imagine utilizing 'net data instead of just browsing it by dragging websites, information and 'netfiles across your screen and dropping them directly into your documents. With WAV, the Internet

is *built in*, and truly becomes your own personal document resource. **Imagine the flexibility of embedding cyber-buttons with direct links to 'netsites**—or if you prefer, *embedding the sites themselves* as living parts of your documents. **Imagine virtually no learning curve** and great compatibility with all your old stuff.



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Folder Bay — Simple-to-use, easily accessible text controls are located here. You can also add your own project folders!

Cyber Button — Create single-click hot links from within your document to any Web, network, or other file location. Instantly launch local applications, sound or movie files, images and more.

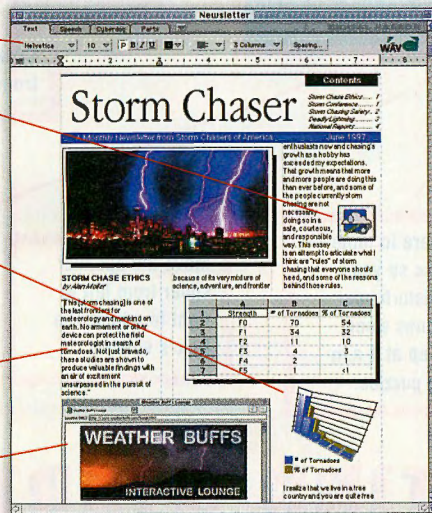
Embedded Part — WAV Documents are living documents* where components can interact with each other—as well as with WAV. In this case, "Numbers & Charts" (component parts from Adrenaline® Software)* display data in an active-3D graph linked to a spreadsheet. As data is edited, the graph automatically updates.

Dynamic Text Wrap — When you drag a part into your document, you'll see how existing text wraps around the part as you move it—all in real time!

Embedded Web Page — Never before has a world-class word processor come with built-in Internet navigation, browsing, viewing and retrieval tools as a part of its control panel. When you open documents, WAV automatically opens live home pages or other embedded sites.

Other straightforward editing features include full tabs, colored text, search and replace, AppleGuide help, text to speech, word count, justification control, and full line-spacing. Most people only use about 3% of the text-editing features found in their traditional word processors. Now, you no longer need to lug around all that stuff! With component technology and WAV, if you need extra text-handling features, simply plug them in later.

*WAV installs complete with OpenDoc, Cyberdog (Net Browser, E-mail, 'Net Search, CyberButton, Net Management), C100™ Components LEXI & C-TextBox, and Apple Live Objects Essentials (QuickTime™ Viewer, Image Viewer, 3DMF Viewer, Apple Draw, Apple Audio).



Freakin' Awesome
rating, Mac Addict
Magazine, March '97



1997
Editor's Choice
and 5-star
technology rating.



BEST
of SHOW



Component 100
MEMBER

The Next Generation Desktop™ are trademarks of Digital Harbor, L.C. All other trademarks or tradenames are the protected property of their respective owners. System Requirements: Macintosh/Power Macintosh, component application size: 1.6 MB, suggested memory: 8 MB (virtual memory on); 16 MB (virtual memory off) MacOS version 7.5.1 or later, OpenDoc 1.0.4 or later. Digital Harbor, L.C., 167 S. Orein Blvd., Orein, UT 84058, www.dharbor.com, (801) 224-5184, fax (801) 224-5183. ©1997 Digital Harbor, L.C. All rights reserved.



the disc

Energize your brain with over 600MB of scrum-diddly-umptious neurosnacks.

the disc

Click on the MacAddict logo to get some help figuring out the Epson Stylus Color 600 contest (see p24).



SHAREWARE

Here you'll find enough shareware and freeware to satisfy even the most demanding hard disk's appetite. Come here to turn your machine into a big Mac! Click on the thumb on the lower right-hand corner to set up your Internet preferences. (If you did this last month, you don't need to again.)



DEMOS

Take a tour through Stop The Rock!, a Corbis sampler, IconMania!, and SpellTools. We provide links to vendor Web sites, too.

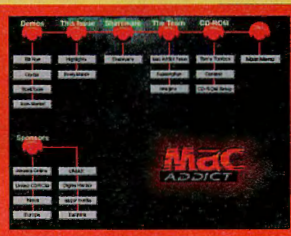


Click here to hear a word or two from our sponsors.



THIS ISSUE

Turn to this screen to find programs and files mentioned in the magazine. Whenever you see a disc icon in print, you'll know to come here on the CD.



INDEX

Click here to get a handy jumping point to every place on The Disc, including this month's contest.

Click here to see movies from the featured demos.



HELP ME

Click here to get a really helpful screen explaining The Disc's interface.

Click here to mute The Disc so you don't disturb your loved ones when you're up at 4 a.m. solving puzzles.

Move the speaker slider from left to right to adjust The Disc's volume.

You don't need to click this button ever.

Ch-ch-changes. Turn and interface the strange. When we replaced the hokey-bogus browser with a real one last December, the LiveWire section lost its purpose. Instead of roping off our Internet connectivity into one lonely page, we now imbue the entire disc with links to the outside world. Join us as we bid adieu and sever LiveWire's last links to a cruel and heartless world. —Kathy Tafel



GETTING STARTED



1. Pop The Disc into your CD-ROM drive.
2. Double-click the MacAddict Tour icon for PowerPC or 68K Macintosh.
3. Have fun!

REQUIREMENTS

Any Mac can access the shareware, demos, and System software from the Finder. Accessing the full CD-ROM interface requires 12MB of real RAM with System 7.1 or earlier; 16MB of real RAM with System 7.5 or later.

OUR DISC SPONSORS

To find immediate information from our sponsors, go to the Index (Option-click any help screen). Or you can wait until you see a message from them in the lower right-hand corner of the main screen. Clicking on the message causes a TV screen to slide down from the top of the page, showcasing more information. You can also access sponsor information from the main window in the Finder.

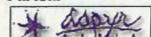
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America Online offers access to the world of online news and information, interactive magazines, finance, entertainment, e-mail, free software, shopping, and more. With a point and a click, you can explore the vast resources of the Internet. Sign on and receive 15 free hours.

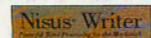
Aspyr Media—Mah Jong Parlour



512-708-8100
http://www.aspyr.com

Play the game of tiles and strategy—solo, networked, or over the Internet. Mah Jong Parlour is the true game of mah jong, which is similar to gin rummy but has intriguing subtleties for engaging gameplay. Mah Jong Parlour is easy to learn and a challenge to master!

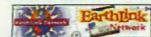
Nisus—Nisus Writer 5.0



800-943-5126
http://www.nisus-soft.com

Because the future is now. You've heard about the Internet and Live Objects (OpenDoc) for years, but until now they've been just out of reach. No longer. The technology is here, accessible, and easy to use in Nisus Writer 5.0.

Earthlink—TotalAccess

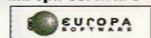


800-395-8425
http://www.earthlink.net

TotalAccess is Earthlink's complete software and Internet connection package. It includes Netscape Navigator, an award-winning Internet access software, and everything needed to register for complete Internet access in less than five minutes. After the \$25 setup fee, unlimited access is provided for \$19.95 per

month. 'Round-the-clock tech support is provided via an 800 number.

Europa Software—Web Quick



http://www.europasoft.com

Frustrated by Bookmarks? Web Quick tracks every page you visit and automatically organizes them by site. It lets you create custom topics—and keeps them all at your fingertips with handy pop-up menus. Web Quick even converts existing Bookmarks. No wonder MacWEEK called it "the first Web utility that is essential!"

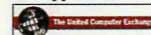
UMAX—SuperMac S900



888-232-UMAX
http://www.supermac.com

The SuperMac S900 system was specifically designed with high-end functionality to meet the needs of creative design and production professionals. We kept all the best things you like—the familiarity and ease of use of the Mac OS and compatibility with all your favorite software. And we wrapped it all up with the raw power of a 604 PCI-based design and delivered it at a price that can't be beat. Many unique features of the new S900 have been designed to eliminate performance bottlenecks that have long troubled the market.

United Computer Exchange—MacAppraiser



800-755-3303
http://www.uce.com

MacAppraiser calculates the current market price of any used Macintosh and/or compatible product with any given configuration.

WAV—The Next Generation Desktop



801-785-2115
http://www.dharbor.com

WAV is the first 'Net-enabled component word processor...that works the way you do. WAV's clever interface provides seamless and immediate access to other OpenDoc, Netscape, and Java components. Aside from the ability to contain parts, WAV can also be embedded into other OpenDoc parts.

CONTEST

Win!Win!Win!Win!Win!

Prove your tactical skills in Command & Conquer!

We found a Mac motherboard scrambled and broken into 16 pieces! Help put the board back together so the poor thing can boot again. When you pop in the CD-ROM, look for a secret button by clicking all over the first screen. (If you had trouble like we did, try the index page.) You'll be *automagically* transported to a hidden area of The Disc. When you solve the puzzle, the CD-ROM will give you a code.

Enter this code on the MacAddict Web site for your chance to win Westwood Studios' Command & Conquer. Special bonus points (but no prize, sorry) go to those readers who can figure out which board it is.

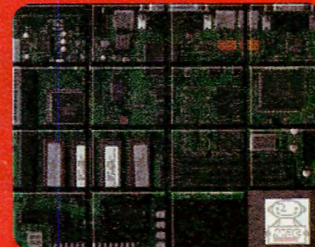


COMMAND & CONQUER

Can you turn this...



into this?



HELP

You Have a Problem?

What! You need help? Well, if your superphat disc is mangled, warped, broken, or otherwise disturbed, you can get a replacement from Imagine Publishing's customer service. We've set up a special page on our Web site where you can order one (at <http://www.macaddict.com/info/service.html>), or you can call them directly at 415-468-2500. If you can't install anything, or get disk errors, do the same.

If you have a different problem with The Disc, please stop by <http://www.macaddict.com/cdrom> before you send us e-mail. If you don't find a solution there, please let us know about it by writing to our man Wade at <cdrom@macaddict.com>.

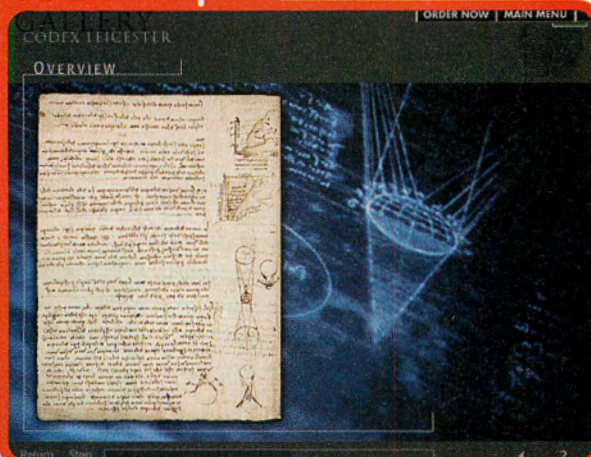
If you're having problems with System software, we recommend calling *the good folks* at 800-SOS-APPL. They'll be more than happy to help you.

DEMOS YOI!



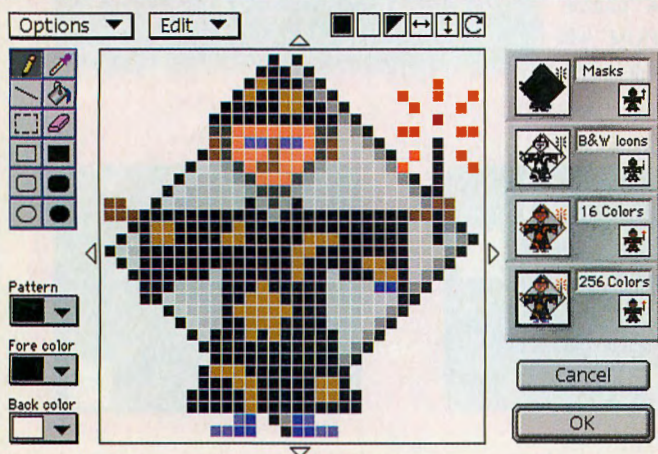
This month we bring you more than 15 terrific demos ranging from games to desktop derangers to kids' stuff. Learn history, make spiffy patterns, and fly a phat plane. Remember, demos are not the full product. Many features of the program are disabled: Image editing programs usually add a watermark to the screen image, and games generally allow you into only a few levels.

Corbis Sampler



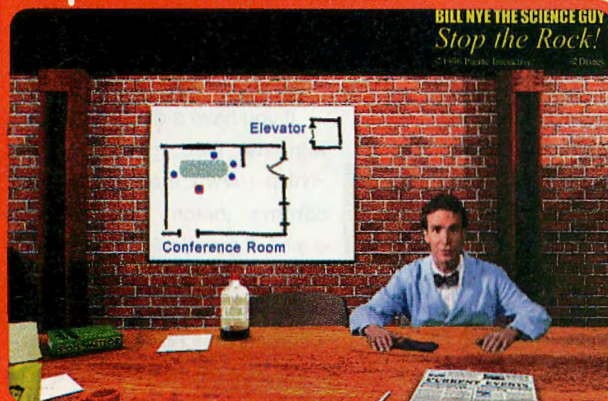
HIGH-CLASS MULTIMEDIA is what you get from Corbis. Sample six of its titles: *FDR*, *Paul Cézanne*, *Volcanoes*, *Leonardo da Vinci*, *Critical Mass*, and *A Passion for Art*. Aside from that volcano thing, we've loved them all (turn to page 78 for reviews of *Leonardo da Vinci* and *FDR*).

IconMania!



AFTER CONTEMPLATING ICONS in this month's feature (p40), use this cool program to manufacture your own manic icons.

Stop the Rock!



THE YEAR 2000 BUG has caught everyone. Volcanoes, earthquakes, what next? That's right...giant asteroids from outer space! Your mission is to help Bill Nye the Science Guy stop a rock from hitting Earth! (Turn to page 80 to find out what the kids thought of Bill.)

SpellTools

HVAE TROUBB=LE WIHT TYOPS? With SpellTools installed, typos will be a thing of the past. In addition to correcting your poor spelling, you can use SpellTools to read selections out loud to you (via text to speech) to catch other, less obvious obvious, errors.

OTHER DEMOS

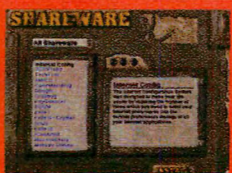
ClickChange
Conflict Catcher
Kaboom!
Mah Jong Parlour
Marathon 4L (original demo)
Marathon 2
Marathon ∞
Myrmidon
Now Startup Manager
Specular TextureScape
ThinkFish
Weekend Warrior
X-Plane

We want to hear from you! Submit your tunes to be included as a soundtrack on The Disc. See your name in lights by sending your recordings and a photo (in any digital format—no tape cassettes, please) to: Music Mavens, MacAddict, 150 North Hill Drive, Suite 40, Brisbane, CA 94005. If we like it, we'll use it on a future disc. Please do not send us the theme to *The Simpsons*! All recordings must be your own original material, which you made from scratch and haven't yet published. You will retain all rights to your work and just give us permission to use it on The Disc. Your music, of course, must be made on a Mac!

PEAK-A-BOO!

Janice Steuer correctly decoded February's mystery. The secret code was X704, the name of the superspeedy chip that runs at more than 500MHZ. Janice will have no more sound-editing pains with her new copy of Peak. Turn back to page 15 to read about your chance to win Westwood Studios' Command & Conquer.





SHAREWARE

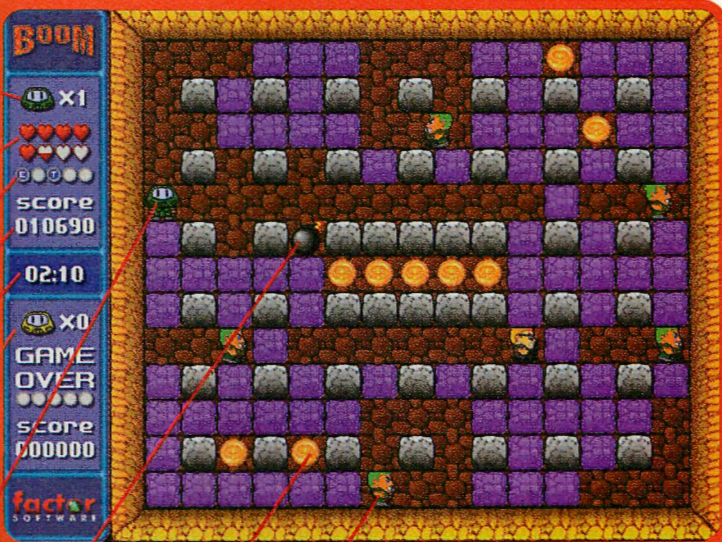
the disc

Find all kinds of spiffy shareware, freeware, beerware, e-mailware, and post-cardware in this section of The Disc. We continually strive to make the *MacAddict* disc reflect what you, the viewing public, want. Please send your suggestions for the *MacAddict* superphat disc to <cdrom@macaddict.com>.

FUN & GAMES

Boom!

THIS ADDICTIVE ARCADE game by Federico Filippini sports only a few controls, but it sure packs a wallop!



Better get extra lives.

Don't let your hearts bleed dry!

Spell extra for an extra life.

How long will it take for you to break 100,000?

Beat the clock for bonus points.

Play with a friend (as allies).

Drop bombs that blast the purple walls.

This is you. You can move up, down, left, and right.

Collect coins for a bonus round.

Don't let the bad guys shoot you.

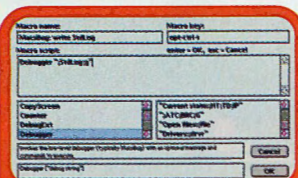
STEFAN'S SHAREWARE SELECTIONS

In "How to Use MacsBug" (p84), we show you many ways to use MacsBug to enhance your use of the Mac OS. Here are a few tips on how to enhance your use of MacsBug. —Stefan Anthony

KeyQuencer

KeyQuencer, a macro engine utility offered in both commercial and shareware versions, includes a Debugger extension with which you can create

macros. When you drop into MacsBug, these macros will automatically perform long and tedious commands, such as creating a log file, writing pages and pages of information about the system environment into the log, closing the log, and exiting MacsBug.



KEYQUENCER'S UNIQUE MACRO LANGUAGE is a snap to learn, and the more KeyQuencer Extensions you have, the more powerful your macros can be.

DBugR

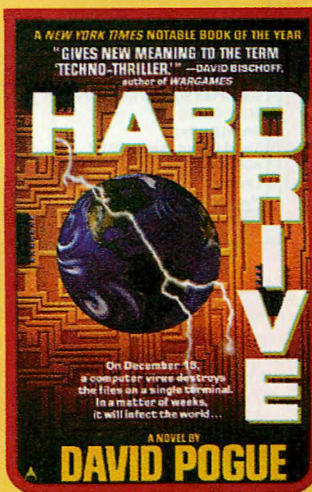
If you're more the visual type, take a look at DBugR, a \$3 shareware control panel from Alessandro Montalcini, who also is the author of KeyQuencer. When you click DBugR's floating debugger icon, DBugR can perform the same tasks that macros can when using KeyQuencer's Debugger extension.



THE DBUGR ICON CAN BE SHIFT-DROGGED to any location on your screen, and Option-clicking DBugR's icon can execute an alternate command.

HARD DRIVE

Welcome back to *MacAddict's* serialization of David Pogue's Silicon Valley thriller. Find part three of *Hard Drive* in the Finder at the root level of The Disc, in which an intrepid Ilsi owner tries to install our hero's speech-recognition software without setting off his virus program.





THIS ISSUE



WHEN YOU SEE this icon in the magazine, find the mentioned software in this section of The Disc.

Throughout this sweet-smelling bundle of tasty Macintosh information, you'll see a funny-looking circular icon filled with whooshy spirals. That icon means that you can find spectacular software on The Disc that's related to the words you read. As you flip through the Reviews section, chances are the icon refers to a product demo. Articles in the How To section usually are accompanied by a demo of the software mentioned and sample documents.

To get the software off The Disc and onto your Mac, go to the This Issue section on The Disc. The dial on the left

side of the page switches between Highlights and Every Month (just like the Table of Contents a few pages back). To turn the dial clockwise, click the right side of the dial (and vice versa to go the other way). The middle column lists the article titles. Clicking an article title flips up, in the right column, a list of software to install. Click on the name of a piece of software to get its description.

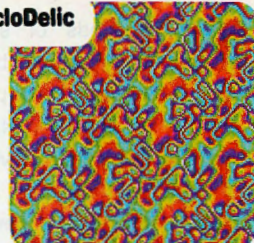
HIGHLIGHTS

For your brand-new, super-smart desktop, you'll need a supersmart desktop pattern. Here's just a sampling of the hundreds of textures on The Disc. Simply drag the textures onto the Desktop Patterns control panel to install them.

1950s



CycloDelic



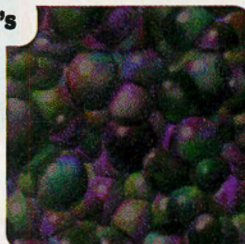
Celtic



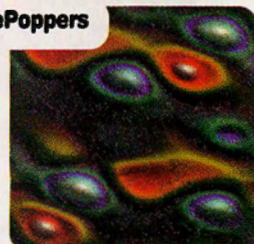
Exotic



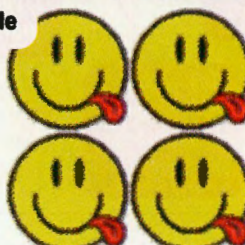
Erik's



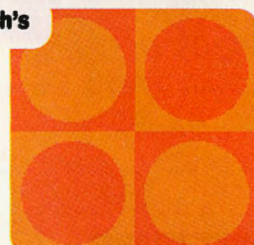
EyePoppers



Smile

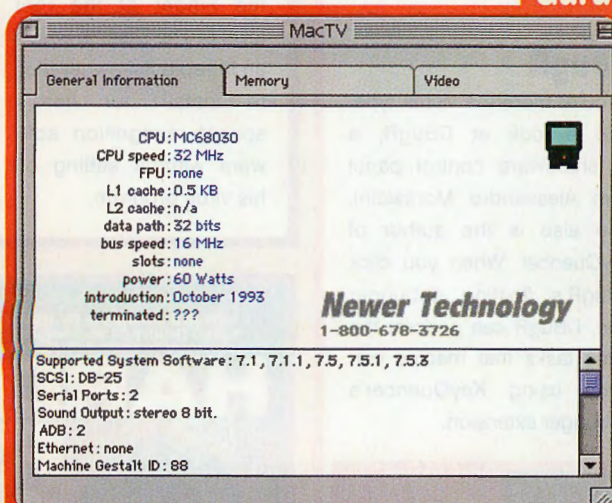


Rich's



ASK US

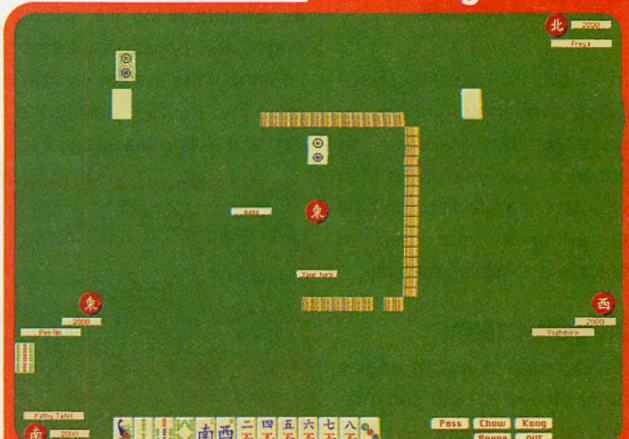
Guru



YOUR OWN PERSONAL GURU. Sure, you've seen Newer Technologies' Guru in these pages before, but that's because it's so cool! Where else can you get such great information about what goes on in your Mac? In addition to RAM upgrade info on every Mac ever made, Guru has a glossary that you can listen to, as well as read, as long as you have Text to Speech installed.

REVIEWS

Mah Jong Parlour



THIS AIN'T SHANGHAI. There is no easy way out. Mah jong is a very cool Chinese game that's like gin rummy, but harder and noisier.

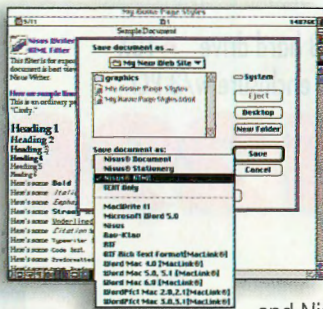
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You've heard about the Internet and Live Objects™ (OpenDoc®) for years, but until now they've been just out of reach. No longer. The technology is here, accessible and easy to use in new Nisus Writer 5.0.

Surf's up!

Now you can use Nisus Writer 5.0 to publish your own Web pages without knowing any HTML. Just create your pages using the special HTML Styles in Nisus Writer. (We've even included HTML Tool Bars for the most commonly used commands.) Then, select the HTML option in the Save As dialog box

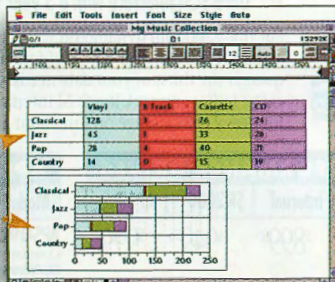


and Nisus Writer inserts all the HTML tags, converts all the graphics and does all the other work for you.

And, with Nisus Writer 5.0's Internet Config support, you can now open any URL directly from Nisus Writer. All you do is Command-click a selected URL in your Nisus Writer document and you're surfing!

Nisus Writer Live

Nisus Writer 5.0 is light years ahead of the competition. It's the first major word processor to be a Live Objects container. That means Nisus Writer 5.0 lets you easily add functionality by dragging and dropping Live Objects like graph and table editors right into your Nisus Writer documents. It's as simple as adding graphics. Nisus Writer even comes with several of the hottest Live Objects available.



Multilingual Support

With Nisus Writer and the appropriate Apple Language Kit, you can type in non-Roman languages like Arabic, Chinese, Cyrillic, Hebrew, Japanese, Korean and Persian. And Nisus Writer no longer requires a Language Key, so you can do without that pesky little dongle hanging off the back of your computer.

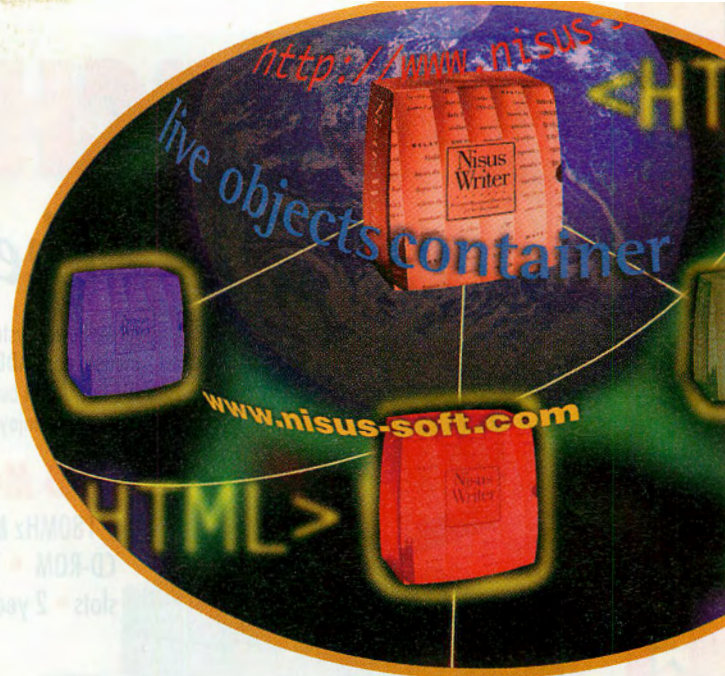
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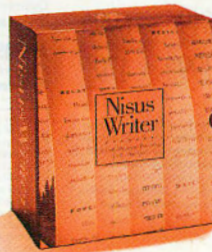
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- Search for nearly any pattern of text you can think of by using PowerFind™ and PowerFind Pro.
- Load up to 24 different Macro and Glossary files at once.
- New Style Libraries let you store collections of defined styles independent of particular documents.
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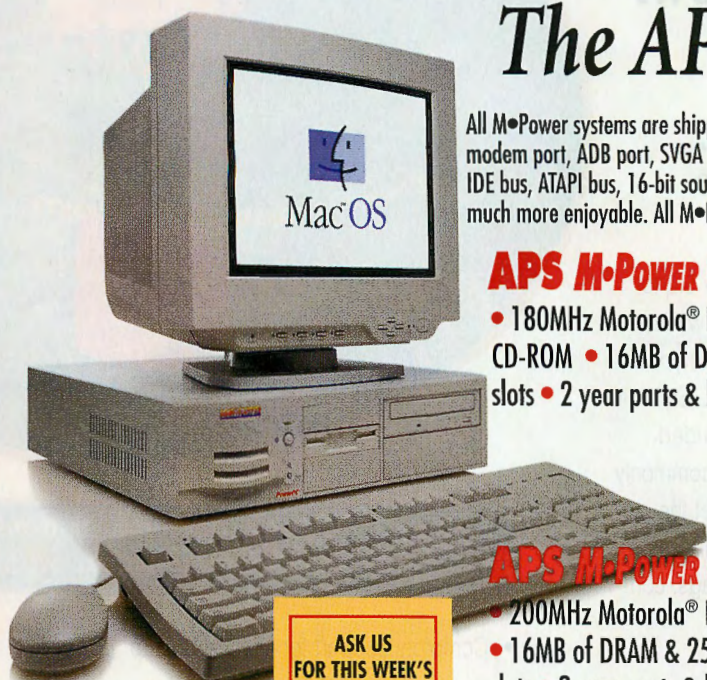
*Suggested Retail Price for the Upgrade - S.R.P. for Competitive Upgrade from other word processors \$149.00. The 68k version of Nisus Writer does not currently support Live Objects.

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APS DESKTOP DRIVES			
Model	Capacity/Awards	Internal	SR2000
APS Q 1280 Quantum Fireball™ TM	1222MB	\$249 ⁹⁵	\$299 ⁹⁵
APS Q 2100 Quantum Fireball™ TM	2014MB	299 ⁹⁵	379 ⁹⁵
APS WD 2000 Western Digital Enterprise	2070MB	649 ⁹⁵	699 ⁹⁵
APS Q 3200 Quantum Fireball™ TM	3000MB	399 ⁹⁵	479 ⁹⁵

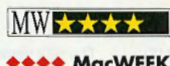
APS HIGH-PERFORMANCE DRIVES				
Model	Capacity	Internal	SR2000	APS Pro
APS WD 4300 Western Digital Enterprise <i>Ultra/Wide available for an additional \$100.00</i>	4200MB	\$899 ⁹⁵	\$949 ⁹⁵	\$999 ⁹⁵
APS Q 4300 Quantum Atlas II 7200 rpm <i>Ultra/Wide available for an additional \$100.00</i>	4341MB	999 ⁹⁵	1049 ⁹⁵	1099 ⁹⁵
APS MS 4300 Micropolis 4345 7200 rpm <i>Ultra/Wide available for an additional \$100.00</i>	4240MB	999 ⁹⁵	1049 ⁹⁵	1099 ⁹⁵

APS HIGH-PERFORMANCE DRIVES				
Model	Capacity	Internal	SR2000	APS Pro
APS Q9000 Quantum Atlas II 7200 rpm <i>Ultra/Wide available for an additional \$100.00</i>	8682MB	\$1799 ⁹⁵	\$1849 ⁹⁵	\$1899 ⁹⁵
APS MS9000 Micropolis 3391 7200 rpm <i>Part/Wide available for an additional \$100.00</i>	8669MB	1799 ⁹⁵	1849 ⁹⁵	1899 ⁹⁵
APS ST9000 Seagate Barracuda 7200 rpm <i>Part/Wide available for an additional \$100.00</i>	8600MB	N/A	2099 ⁹⁵	2149 ⁹⁵

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* 30-day money-back satisfaction on all APS brand drives and accessories. Your risk is the cost of shipping. 30-day money-back guarantee does not apply to M•Power systems. Two year limited warranty on M•Power systems. Monitors carry separate warranty from their respective manufacturers.
• SCSI cables sold separately.
• Drive-for-Drive Repair or Replacement Warranty. APS will, at its discretion, replace or repair products found to be defective according to the terms of the product's warranty.
• Refused orders subject to 20% restocking fee.
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• Actual data compression and tape capacity vary greatly depending on the type of data recorded, other system parameters and environment.
• Prices and specifications are subject to change without notice.
• You need to install system software appropriate to your machine before using our hard drives.
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APS IDE DRIVES		
Model	Capacity	Internal
APS I 2.1 IBM 2.5 17mm DCRA-22160 4900 rpm	2067MB	\$599 ⁹⁵
APS WD 3000 Western Digital Caviar	3020MB	399 ⁹⁵
APS I 4000 IBM DCCA-34300	4330MB	499 ⁹⁵



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APS M•POWER 604e200™

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- Tower enclosure w/5 PCI slots • 2 year parts & labor warranty

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APS CD-R

- ✓ 2X record, 6X read mechanism
- ✓ Your choice of Toast, Discrite or Retrospect

2X recording and 6X CD-ROM playback, makes this drive ideal for creating multimedia CDs or backing up a hard disk drive at double speed. The APS CD-R includes your choice of Toast, Discrite, mastering software or Retrospect backup software.

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External configuration



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- ✓ Hard drive performance
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Jaz has changed the removable storage market forever! The APS Jaz's performance rivals that of most fixed-platter hard disk drives.

APS Jaz drive with 1 cartridge \$499.95



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External configuration



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Model	Capacity/Awards	Internal	SR2000
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APS HyperDAT® DDS-2 DC	5GB	NEW LOW PRICE	749 ⁹⁵ 799 ⁹⁵
APS HyperDAT® Pro DDS-2 DC	8GB	NEW LOW PRICE	849 ⁹⁵ 899 ⁹⁵
APS HyperDAT® III DDS-3 DC	24GB		1149 ⁹⁵ 1199 ⁹⁵
APS MiniLibrary 4mm DDS-2 AutoLoader	64GB	N/A	2599 ⁹⁵
APS AIT 8mm W/DC	50GB	N/A	3999 ⁹⁵
APSDLI 4mm DDS-2 AutoLoader	136GB	N/A	4999 ⁹⁵



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APS REMOVABLE DRIVES

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APS M540 (with 1 cartridge)	515MB	N/A	\$249 ⁹⁵
APS M540 (with 4 cartridges)	N/A		449 ⁹⁵
APS SQ 5200		N/A	389 ⁹⁵
APS Jaz (with 1 cartridge)	1GB	\$499 ⁹⁵	499 ⁹⁵
APS Jaz (with 3 cartridges)	1GB	599 ⁹⁵	599 ⁹⁵

APS MO DRIVES

Model	Capacity/Features	SR1000	SR2000
APS 230 MO	Up to 217MB	\$299 ⁹⁵	\$379 ⁹⁵
APS 640 MO	606MB/ New 2MB cache		599 ⁹⁵
APS PD4	633MB Phase Change/4X CD-ROM		399 ⁹⁵

APS CD-ROM DRIVES

Model	External
APS CD12 12X CD-ROM in Slimline case	\$179 ⁹⁵
APS CD Changer 8X 4 Disc CD changer	299 ⁹⁵
APS CD-R 2X record/6X read CD-R	499 ⁹⁵
APS Jaz/CD-R System 2X record/6X read CD-R	999 ⁹⁵
APS CD-R Pro 4X record/6X read CD-R	1099 ⁹⁵
APS CD-R Mastering System 4 2X record/6X read CD-R and 4GB Hard Drive	1999 ⁹⁵
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the web site

In what has become a regular alternating cycle, this month we switch from Net-surfing tips back to talking about our site. This scheme gives us two months to come up with new Web site features to blather about. —Mark Simmons

Window Dressing

Sometimes it seems as though we spend more time fiddling with the site's design and graphics than with anything else. Continuing our tradition of seasonal revamps, we redecorated for Valentine's Day, and by the time you read this, we should have St. Patrick's Day and April Fools' Day revamps under our belt. Next, watch for something special to celebrate our Web site's one-year anniversary on April 15. Hmm. Purple and green is so 1996....

Meanwhile, we've been tinkering with the site's general aesthetics and HTML

design. The effects are subtle—a scrolling frame here, a revamped navigation bar there—but we continue to strive for a more perfect Web site.

By Popular Demand

We also added a few features in response to your requests and suggestions. Here's a rundown of what's new and improved in each section of the site.



TOOLS

<http://www.macaddict.com/tools>

This section is now host to New & Improved, a centralized list of recent software updates that provides one-stop shopping for the very latest goodies. The popular BetaWatch page has found a permanent home here, to delight the daring and fool-

hardy. You'll also find an Ask Us page devoted to Owen W. Linzmayer's troubleshooting column, featuring updates and corrections from the man.



ABOUT US

<http://www.macaddict.com/info>

We've fleshed out our reader service by adding a Back Issues page where you can check out covers and contents of the MacAddicts of yesteryear. As of this writing, our entire 1996 run has sold out, and the early 1997 issues are getting mighty scarce—so don't delay, order today! As consolation for the latecomer, we posted some of the most popular articles from the early issues on the Web site. Looking forward, we also added a Next Issue page that offers a sneak peek at upcoming issues.



CLUBHOUSE

<http://www.macaddict.com/mac>

With the recent storm of Apple-related news—reorganizations, acquisitions, actually having an operating system strategy, greatly exaggerated rumors of the company's demise, and the like—the news blurbs for this section have been scrolling off at a rapid clip. Maybe we should add a news archive or something. Meanwhile, the

Soapbox page collects our staff's rants and raves, as well as Macworld Expo coverage, Apple organization charts, and other trivia.



NET

<http://www.macaddict.com/net>

We're continually expanding our selection of favorite links; for direct access to our hand-picked faves, bookmark <<http://www.macaddict.com/net/links.html>> and use it as your surfing starting point.



GAMES

<http://www.macaddict.com/games>

Our Product Guide page include links to more than 40 downloadable demos of hot new games. As for upcoming releases, our Games News page features periodic roundups of release dates and schedules.



ARTS

<http://www.macaddict.com/arts>

Coming soon to the Arts page is the eagerly anticipated Reader Art Gallery! From photos to Mac-created art to lovingly crafted icons, this page will showcase the creative talents of our loyal readers.

Mac ADDICT

Free Issue & CD!



Arts



Clubhouse



Games



Net



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About Us

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Today's News

Monday, February 17: Apple introduces cutting-edge new hardware today, from our upcoming April issue, here are in-depth looks at the **PowerBook 3400** and Apple's **speedy new Power Mac lineup**. There are also new education Macs, imminent Newton deliveries, and an upgraded QuickTake digital camera. Meanwhile, join the decorating fun with Tiger Technologies' Sweet Hearts and the winners of the Iconfactory's Pixelpalooza contest. Apple reads a fix for the CFM-68K Runtime Enabler problem, Fortune aims some dirty Cupertino laundry, and MacWEEK serves up Rhapsody status reports.

Apple's stock closed Friday at 16 5/16 (up 3/16)

This Issue

March 1997: In our snazzy seventh issue's Internet Survival Guide, we help you get from setup to exploration, to turbo-charged efficiency. Get started with AppleScript, rehab that old SE/30, and find out what happens when you pass the 10,000 feet barrier. We also have information on **back issues** and a sneak preview of **next month's issue!**

Help!

NO, THESE AREN'T our official new colors. But for a few happy days, we festooned our home page with cutesy hearts. Don't miss our next seasonal makeover!

Are you the kind of person who always wants everything your own way? **Cool!**

EarthLink's Internet access now includes your Personal Start Page.

News: http://www.earthlink.net/start/nph-bserver-v2.cgi

What's New? What's Cool? Destinations Net Search People Software

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FRIENDS, ROMANS,...



IT'S LEAN AND MEAN, but Spartacus isn't lovable.

Last August, when Gil Amelio announced that Apple would produce a Twentieth Anniversary Macintosh, we all hooped and cheered. Apple assured us that the Twentieth Anniversary Macintosh—code-named Spartacus—would be a celebration of the Mac and a reward for longtime Mac supporters. But

what Apple has created is more of a diversion for those with money to burn.

Spartacus has some impressive specs—a bright 12.1-inch active-matrix color flat-panel display, a blazing 250MHz PowerPC 603e processor, 32MB of RAM, 2MB of dedicated video RAM, a spacious 2GB hard drive, a 256K Level 2 cache, a vertical 4X CD-ROM drive (the fastest vertical CD-ROM drive available), a short 7-inch PCI slot, a communications slot, and a 33.6Kbps Geoport external modem. There's also a TV tuner and an FM tuner. A separate cylindrical unit holds a subwoofer and a power supply. And the sound system is spectacular.

Of course, the design is striking. This super-super-thin Mac (about 4 inches at its widest) boasts a bronze color that takes on the tints of its surroundings. A handy little "foot" lets you tilt the Mac when it is standing, or it can be folded up and used as a handle for toting this lightweight Mac.

Each of these high-powered units is delivered to your home by a "concierge" who sets it up for you. The specially

designed keyboard includes a detachable trackpad; if you remove it, fill the empty space with the included black leather wristrest.

So what's not to like? There's not much new technically in Spartacus. The best hardware feature is the audio system—which was developed by Bose. When the Mac first came out, it sported lots of brand-new hardware innovations—a mouse, a 3.5-inch

floppy drive, and a 68000 processor. Spartacus, on the other hand, doesn't even include any type of removable storage.

Spartacus costs 9,000 smackeroos!

While the design is striking, it's just not compelling. When the original Mac came out, it was funky, funny, fun—maybe even a bit too much so. But whatever you thought, it struck an emotional response in most people. Spartacus does not.

Finally, there's price. Spartacus costs 9,000 smackeroos! At \$2,495, the original Mac was no bargain, either. But the Consumer Price Index shows that the 128K Mac would have cost \$3,711.85 in 1995. Even with two more years of inflation, the price would be—nowhere near the cost of Spartacus.

Granted, Apple isn't trying to produce a whole new computer, as it did with the 128K Mac. And granted, Spartacus isn't meant to be all things to all people; it's a first step toward making industrial design a priority again. But logic aside, we can't help but feel that Apple could have done it, well, better.

Apple will make only 12,000 units—the machine *may* be worth a great deal more than its purchase price in just a few years. But we think there are better long-term investments—things like stocks. If you still want a Twentieth Anniversary Macintosh (and despite what we think, some of you may find this Mac quite luscious), go to <twentieth.anniversary.apple.com> or call 800-776-2333 to find one of the 200 U.S. dealers that will carry Spartacus. —CE

Win an Epson Stylus Color 600 Inkjet Printer!

Get out your magnifying glass to win this contest. You must identify the junk in the MacAddict "clean" room (find a tour of the MacAddict Lab—and a bigger photo—on page 46). You must pick out at least 25 objects. The longest list wins, and in the event of a tie, the winner will be picked in a random drawing. For your chance to win Epson's stylin' Stylus Color 600 (see the Epson Stylus Color 800 review, p76), send your list of MacAddict Lab instruments to Twisted Tools, MacAddict, 150 North Hill Drive, Suite 40, Brisbane, CA 94005, or submit it on our Web site at <<http://www.macaddict.com>>.



Java Virtual Machines

The hype surrounding Java about a year and a half ago did more than generate massive overuse of coffee as a metaphor. Java engendered in Mac enthusiasts a hope that Macs could be more than second-class citizens in a business environment. The promise of Java is that a developer can write one program and deliver it on many platforms. In addition, the Java language prevents programmers from touching memory directly. This means that a crash in a Java program doesn't crash the rest of the system and that because 99 percent of all bugs that cause crashes come from trashing memory, Java programs are virtually crash free.

Each platform, though, needs a Java virtual machine running on it to be able

TOO MUCH OF A GOOD THING?

Java programs are virtually crash free.

to run Java programs. Netscape Navigator was the first application that had a virtual machine integrated in it. However, it's awfully hard to write programs using a browser as your development environment. To fill the need, Metrowerks, Symantec, and Roaster Technologies

each developed its own virtual machine and Java development environment. Apple recently joined the fray by introducing the Mac OS

Runtime for Java (MRJ).

This means you now have five Java virtual machines from which to choose. Each browser installs a different virtual machine: Navigator uses Netscape's; Apple's Cyberdog uses the MRJ; and Microsoft Internet Explorer comes with two flavors of the Metrowerks product and also can use the MRJ. (Symantec's and Roaster's virtual machines are available only with those companies' development environments.)

But you don't need all these virtual machines. Except for the one in Navigator, each virtual machine is implemented as a shared library. Applications using a shared library look for it first in the folder that contains the application and then in the System Folder. If you're having trouble figuring out which virtual machine you're using, pull all of them out into a folder on your desktop, and then put the one you want to use in the Extensions

folder. (To find them, search for "Java" or browse through your System Folder).

The first round of Java virtual machines are dog slow. To optimize performance of the virtual machine, some companies are now using a just-in-time compiler, which caches pieces of code it uses a lot. As Java matures, you'll see other speed enhancements. Apple's goal with the MRJ is to have Java programs run faster than programs written in C or C++. Apple plans to include the MRJ in this summer's System release, code-named Tempo. When this happens, expect developers to rely on the MRJ for Java playback, instead of bundling their own virtual machines, thus eliminating a lot of confusion and repetition of files. —KT



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LLOYD DANGLE



(check one only)



Pick-a-Steve

Apple's two co-founders, Steve Jobs and Steve Wozniak, are the stuff of legends. You've heard the stories about their antics, their personality traits, and their beliefs. Given that, we're curious—if you were stuck on a desert island and had to choose one of the two Steves as your companion, which one would you choose? Respond to <<http://www.macaddict.com/poll.html>> or to Pick-a-Steve, MacAddict, 150 North Hill Drive, Suite 40, Brisbane, CA 94005 by May 15, 1997. We'll run the results in a future issue.

We Got a Winnah!



Thane Jansen, come on down! You're the latest winner of a MacAddict contest (Feb/97, p29). Thane correctly matched all six dogs (actually five dogs and one dog-cow) with their respective names and owners, and by doing so, won a copy of Aladdin Systems' Spring Cleaning. Congratulations, Thane.

The correct answers are:

- 1) Freelance (MVP Solutions' Retrieve It!)—F
- 2) Webster, your Web Buddy (DataViz)—C
- 3) Cyberdog (Apple)—E
- 4) Clarus (Apple Developer Tech Support)—A
- 5) Ling Ling (Bungie)—D

6) Sammy (Cheryl England)—B

A few notes:

David Rodgers of Halifax, Nova Scotia, reports that "Cyberdog says that Clarus is a dogcow, not a dog." Cyberdog is one smart puppy, David. Clarus is indeed a dogcow, a two-dimensional being that says "moof." Although she is typically shy, Clarus can be seen in the LaserWriter 8 Page Setup... dialog box. Find out more about Clarus by reading Technote 31 or Technote 1031 on Apple's developer Web site at <<http://devworld.apple.com>>. —DR

SYSTEM 7.6 HIGHLIGHT

OK, you've probably already read about System 7.6's major features, such as a new Installer and new Extensions Manager. But here's one really cool feature that few people know about yet:

There's a brand-new PictWhap FKEY (Command-Shift-4) that lets you take screenshots of selected regions of the screen or (if the Control key is down) the contents of a window. It also lets you redirect a screenshot to the Clipboard rather than to a PICT file. —DR

NEW

get

FOR THE MAC

MACINTOSH SMALL BUSINESS EDITION

(Apple: 408-996-1010,
<http://www.apple.com>, \$2,499 (SRP),
 available in March)

Apple and Microsoft (yes, Microsoft) have teamed up to bring the business world a small-business Power Mac based on a 250MHz 603e processor, complete with 40MB of RAM, 4GB of hard disk space, a Zip drive, a 12X CD-ROM drive, a 33.6Kbps modem, and a speakerphone. The Small Business Edition comes with quite a software bundle, including Microsoft Office, Norton Utilities, BizPlan Builder, Small Business Legal Pro Deluxe, and Now Up-to-Date & Contact among its titles.

ADVCD16E 16X CD-ROM

(MicroNet: 714-453-6100,
<http://www.micronet.com>, \$275 (SRP),
 available in March)

When your 8X CD-ROM drive feels too slow for words, consider the new 16X half-height external CD-ROM drive from MicroNet. It features an access time of 150ms and data transfer rates of up to 2.4MB/second.

LIVE PICTURE 2.6

(Live Picture: 800-724-7900,
<http://www.micronet.com>, \$275 (SRP),
 available in February)

It seems former Apple man John Scully has been busy (or at least those who work for him have been). His company released Live Picture 2.6, which includes support for the FlashPix file format, as well as an edge highlighter, new resolution-independent textures and gradients, and new path tools. Live Picture also understands paths drawn in Adobe Illustrator 6.0 and Adobe Photoshop 4.0.

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TOP 5 BROWSER PLUG-INS YOU NEED

AND WHERE TO FIND THEM

Tired of Web pages that feature nothing but text and graphics? Looking for richer layouts, a more three-dimensional experience, or additional media types? Although scores of plug-ins are available to pep up your browser, you won't want to add all of them. The more you add, the more unstable your browser is liable to become. Here are the five you're most likely to need.
 —Tonya Engst

ACROBAT

Adobe's Acrobat Reader 3.0 opens and prints Portable Document Format files (PDFs). Why bother? Because some organizations put their information online in PDF files. In particular, document designers use PDFs for documents that don't easily convert to Web format, documents such as government forms and detailed maps. For the ultimate in Acrobat coolness, check out the Acrobat PDFViewer plug-in, which displays PDF files directly in your browser window. Microsoft Internet Explorer 2.0 and 2.1 users, be cautious—Adobe's Read Me file recommends configuring Acrobat as a helper application in order to avoid crashes.

• <http://www.adobe.com/prodindex/acrobat/main.html>
 • <http://www.adobe.com/prodindex/acrobat/pdfweb.html>

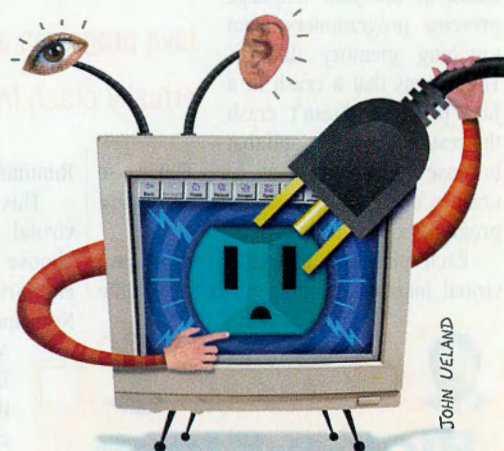
HOT SAUCE, THE PROJECT X PLUG-IN

Pretend to be a *Neuromancer* Net jockey with the Project X Plug-in from Apple. With Project X installed, savvy Web sites become 3D experiences in which you fly inside information hierarchies. Watch out for crashes—we've had several, which isn't surprising, given that the plug-in is only at version 0.005.

• <http://hotsauce.apple.com>
 • <http://hotsauce.apple.com/text/xtras.html>

QUICKTIME

Netscape Navigator 3.1 ships with QuickTime Plugin 1.0, a plug-in from Apple that plays QuickTime movies. The more recent QuickTime Plugin 1.1 incorporates important new features that put it at the top of the plug-in heap. It now supports the widely accepted MPEG format, plus sound files such as WAV and AIFF; it caches movies



locally for Navigator users; and it supports QuickTime VR hot spots. Note that you must install Apple's QuickTime MPEG extension in order for MPEG movies to work, and according to Apple, Microsoft Internet Explorer users should use Explorer version 2.1.

• <http://quicktime.apple.com>
 • <http://quicktime.apple.com/sam>

REALAUDIO

RealAudio 3.0 from Progressive Networks lets you hear streaming audio—sound files that play as they download. Use it to listen to music snippets from record companies or to catch your favorite radio show when you have time to pay attention. The future should hold RealPlayer 4.0, which will feature streaming video.

• <http://www.realaudio.com>
 • <http://www.real.com/hpproducts/ra3.0/index.html>

SHOCKWAVE

Shockwave, a multimedia player from Macromedia, may shock your system in more ways than one. Don't even bother downloading the plug-in unless you have a Power Mac with an available 12MB of RAM into which your browser will load. If you have the raw power and some patience, running Shockwave catapults you into a world of supercreative animations and movies, plus games and other online presentations.

• <http://www.macromedia.com/shockwave>
 • <http://www.macromedia.com/shockwave/epicenter>

The Little Color Scanner That Thinks It's An Office Manager.



Scan in Beautiful 24-bit Color. Save, Annotate or Route Documents to Fax, E-Mail and Printers.

If you're buried under a mound of documents you have to sort through, save, file and route every day, then get the new, very affordable Microtek Color PageWiz™ page scanner. Color PageWiz captures photos, drawings, business cards, magazine articles, reports, legal briefs — virtually any business document — and places them right into your computer.

Aggressively Priced Yet Fully Loaded.

Only Microtek could offer a color page scanner with such superb image quality for just \$199 and still pack it with some spectacular software. For example, Windows models of Color PageWiz include Xerox TextBridge® OCR software for scanning pages of text, Xerox Pagemaster® for document management and routing scanned documents to your

fax or e-mail software, and Ulead's iPhoto Express™ for making greeting cards, calendars and announcements.

Macintosh models include Xerox TextBridge®, MicroFrontier's Color It! the 32-bit image-editing and paint software and Microtek's new PageSuite™, easy-to-use, drag-n-drop software for routing scanned documents to your fax,

e-mail software. PageSuite for Macintosh also allows you to add annotations, highlights, enhancements or special effects to all the documents you scan.

Small Footprint. Easy To Connect. Pack It To Go.

Color PageWiz is small enough for the home, powerful enough for the office, and light enough to fit into your carry-on luggage. And it has a simple parallel port cable connection for PCs and laptops, so

there's no need to pry open your computer and install an interface card.

The Little Scanner From The Big Scanner Company.

Choose the page scanner from the company that virtually invented desktop scanning, from the company with a solid reputation for award-winning and reliable scanners, from one of the largest scanner manufacturers in the world — Microtek.

For the location of your nearest Microtek Color PageWiz reseller or for more information, call 1-800-654-4160 for Microtek Sales, or point your browser to our award-winning Web site: www.microtekusa.com.

FEATURES

- 24-bit color / single-pass scanning
- 300 x 600 dpi optical resolution / 1200 x 1200 dpi enhanced resolution
- Scans photos, business cards, letter- or legal-size documents and more!

Only
\$199!
Suggested Street Price



MICROTEK
Better Images Through Innovation.



Price mentioned is manufacturer's suggested street price. Bundled software and user's manuals are on CD-ROM. Retail packaging of software depicted is not available with this product. The following are trademarks or registered trademarks of their respective companies: Microtek, Color PageWiz, PageSuite of Microtek Lab, Inc.; Windows of Microsoft Corporation; Macintosh of Apple Computer, Inc.; iPhoto Express of Ulead Systems, Inc.; TextBridge and Pagemaster of Xerox Corporation; Color It! of MicroFrontier, Inc. All other trademarks or registered trademarks are the property of their respective holders. Prices, specifications and software bundles are subject to change without notice. Color PageWiz is available in Windows only, Macintosh only or dual-platform configurations. Contact your reseller for more information. CPW497

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get info

QUICKDRAW 3D PLUGS IN

With its version number now safely past the 1.1 wasteland,

QuickDraw 3D (version 1.5.1) is a technology that's here to stay. As part of the QuickTime Media Layer, this extension makes 3D objects available to any application, and Apple has opened up the latest version of QuickDraw 3D for plug-in renderers. This means that developers can write their own code to display the 3D object on the screen. While 3D rendering programs such as

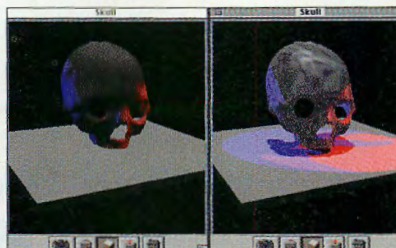
AND RENDERS US SPEECHLESS



DROP YOUR JAW at the ThinkFish renderer on The Disc.



THINKFISH'S RADICAL NEW APPROACH applies a "cartoon reality" to 3D objects.



COMPARE THE NORMAL QuickDraw 3D renderer on the left with LightWork Design's more realistic renderer on the right.

Fractal Design's Ray Dream Designer will have to be updated so you can *create* the new objects, any QuickDraw 3D-enabled application (such as the Scrapbook) can display them. Sound esoteric? Two companies, LightWork Design (+44-114-266-8404, <http://quickdraw3d.lightwork.com>) and ThinkFish (415-252-1525, <http://www.thinkfish.com>), already have developed plug-ins, and more are sure to be on the way. —KT

THE NAME SAYS IT ALL— help for the design impaired.

or no taste). You also get handy advice on making patterns and small images. The book comes with a spiffy CD that has all the software mentioned, plus the color tables so you can see the RGB values as they appear onscreen rather than just as they appear printed with CMYK values.

- *The Non-Designers Design Book* by Robin Williams (Peachpit Press, \$14.95). The title pretty much says it all. This guide to page design for non-designers teaches you basics without boring you to death. You'll learn about alignment of images and text, contrast, fonts, and color. In short, read this and you'll learn everything you need to know to make a page look good—maybe even classy.

- *Learn Java on the Macintosh* (Addison-Wesley, \$34.95). Designed for the nonprogrammer, this book teaches Java without forcing you down the path of buzzwords and jargon. The book comes either in a print-only version or as part of MetroWerks' Discover Programming with Java series on CD—the CD includes the Java compiler and the book.

- *AppleScript Applications* by John Schettino and Liz O'Hara (AP Professional, \$34.95). This book teaches object-oriented programming in an easily accessible way. Learn how to use AppleScript with Digital Technology's FaceSpan to make applications, and get a CD with sample scripts. *AppleScript Applications* is supposed to be for beginners,

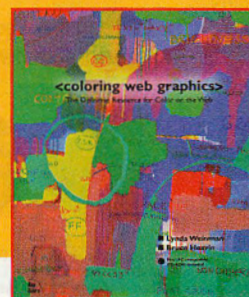
but we think you should be familiar with AppleScript before signing up for this class. —CE

THIS COLORFUL BOOK casts its colorful subject in a bright and colorful light.

Reading List

It's spring, almost summer, and we've been dreaming about lying on the beach and reading. But we're not the type to waste time reading trashy novels—not us, nope. If you're like us and want to read something helpful this summer, here are four top picks. (Note that this is not a scientific survey of all the Mac books available—these are just ones that have piqued our interest lately).

- *Coloring Web Graphics* by Lynda Weinman and Bruce Heaven (New Riders, \$50). This colorful book steps you through the color tables. It tells you which colors won't dither when displayed and, even better, tells you what colors match (really helpful for those of us with either no sense of color



REASON 30

WHY THE MAC IS BETTER THAN A PC

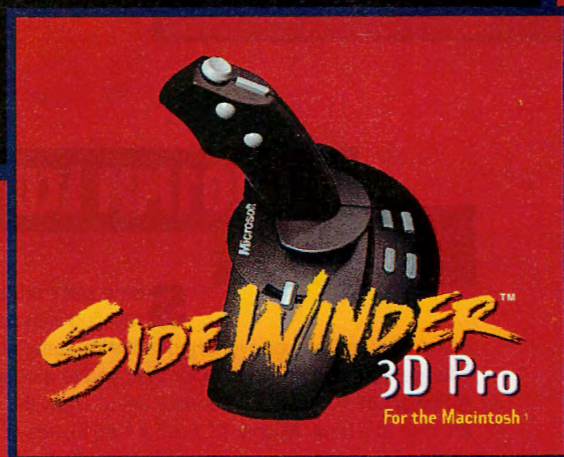
Software is easier to install. On a Mac, when you install software, you choose where it goes. Windows has no standard for installing software, however. Sometimes you can choose where to install software, but sometimes you can't. Try installing Netscape Communicator on a Windows 95 machine. The installer gives you no placement options and then makes the application harder to find than Waldo. Give up? It's in C:/Program Files/Netscape/Communicator/Program/Netscape.

The reason
lightning doesn't strike twice
in the same place
is that the same place isn't there
the second time.

— Willie Tyler

Digital precision. Deadly accuracy.

Imagine scorching your enemies with razor-sharp precision. With the world's first digital-optical joystick, the SideWinder™ 3D Pro, you'll balance complex moves with maximum control to get the ultimate in responsive game play. You won't have to recalibrate, even after hours of play. And every handle rotation instantly changes your viewpoint. Digital Overdrive lets the joystick communicate more efficiently with your Mac®-based games. All the better to singe your competition.



Microsoft

Where do you want to go today?® www.microsoft.com/sidewinder/



cravings

Pant, pant. Drool, drool. We just can't control ourselves around these things.

Coda Random Noise

JAVA WITHOUT THE JITTERS.

It's a sad, sad day for those of us who like buzzwords that are mostly buzz. Bedrock, Copland, PowerTalk—we've all had our pet technologies that had tons of promise but never delivered, and we delight in the false sense of a brighter future that never arrives. Java once had that kind of potential, but Random Noise—with the introduction of Coda—has given Java substance, thus removing it from the empty-technologies pantheon forever. Coda, which is written in Java, creates Java-enhanced Web pages and sites that take advantage of the latest Web technologies. Now you can have the kind of control over your Web pages that you could never squeeze out of HTML, and for a suggested retail price of \$495. Even better, you don't have to sully your synapses with learning the Java programming language to use Coda. The program provides a visual way to create and edit your very own Java files. For your first taste of useful Java—never bitter—call 415-437-0321, or surf to <http://www.randomnoise.com>.



FM Radio La Cie



ASTOUNDING, the way audio technology keeps spewing forth useful gadgets, and how those gadgets keep coming back in retro vogue. First vinyl, then eight-tracks, and now La Cie has brought back the FM radio. What's that, you say? FM never went anywhere, and you can already buy an FM radio for less than \$10? Not like this, you can't (unless you know something about that truckload of high-tech goodies that disappeared from the freeways last month). La Cie's FM Radio is exactly what the name implies—an FM radio. But what's so extra spiffy about

La Cie's \$49.95 product is that

it plugs into your Mac's ADB port, letting you

ANOTHER AWESOME AUDIO DISTRACTION.

block out the mindless chatter of those around you while you get on with really important work. The FM Radio's software comes as a Control Strip module (which controls tuning and volume) and also has a stand-alone application that programs up to 50 stations. The FM Radio has a port to allow sound from your Mac to make it to the same headphones that you use to listen to the radio, which means that you'll actually hear the Type 11 error beep. Contact La Cie at 800-999-1179, or go to <http://www.lacie.com> for more information.



QD-101MM LCD Monitor Sharp Electronics

SOME call it art, but you've never been satisfied with paintings. They just sit there, for hundreds or even thousands of years, and they never, never change. You don't have time for that; you're a busy person. Your solution? A Sharp QD-101MM LCD monitor set to show the world's great works of art, one at a time. At only 11 x 8.2 x 1.85 inches, it's compact enough to hang on your wall. With 16.7 million colors available, you'll see true, accurate color. And at \$2,995, it'll cost you less than that bogus Picasso you bought last fall. As an added bonus, you can route soothing museum music through the monitor's built-in speaker, and connecting the device is as easy as running a cable from the monitor to your Mac. Best of all, when your friends bring over *Sleeper* on videotape, you can hook up your VCR to the monitor through its video inputs. Call 800-237-4277, or point your browser to <http://www.sharp-usa.com> to display only the best.



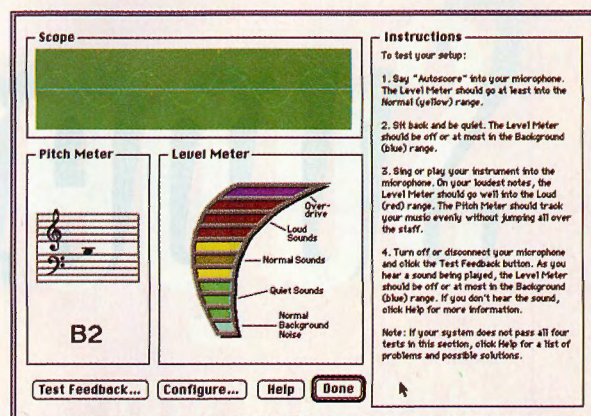
Autoscore

Wildcat Canyon Software

You've been having this argument with your brother for years. When he whistles for his dog, the whistle goes from an E to a B to a G. He insists that the sequence of notes is actually E to A sharp to F sharp. Before this disagreement comes to blows, the two of you should look into Wildcat Canyon Software's Autoscore. For a mere \$119, Autoscore will listen in when Rex is called, dutifully scribing the notes of your brother's whistle to the screen. Autoscore "listens" to almost any sound

PUT YOUR PERFECT PITCH TO THE TEST.

(such as the human voice or musical instruments) and converts it to notes for editing or playback. The package also includes a multitrack sequencer that can print. You can save Autoscore lines and export them to several MIDI programs, including Opcode Systems' Musicshop, OSC's Metro, Jump! Software's Concertware, and Coda Music Technologies' Finale and Allegro. Autoscore is Power Mac native and can handle 44KHz sound input. Call 800-336-0989, or go to <http://www.wildcat.com> to prove that you did so inherit better hearing than your brother.



cravings

RealVR Xtra

RealSpace



Let's face it: Reality is overrated. Not only do you have taxes, grocery bills, and Bob Saget to contend with, but you're stuck with what nature has left you for a universe: sweeping plains, vast deserts, grand rainforests, and rich, rich ocean—booring. There could be so much more if you only wielded the power of a god.

RealSpace can't help with the sticky theological details of divinity, but it can help you create a new reality. By laying out \$299, you can purchase the RealVR Xtra, which drops RealVR scenes into a Macromedia Director movie. The RealVR Xtra can access the Internet without a browser, so you can connect your RealVR scene to the ultimate virtual reality. The RealVR Xtra also includes Vistagrapher Lite, which stitches together a series of digital images into a panorama suitable for RealVR or QuickTimeVR, and without needle and thread. To create your own little world, call 888-732-5772, or go to <http://www.rlspace.com>.

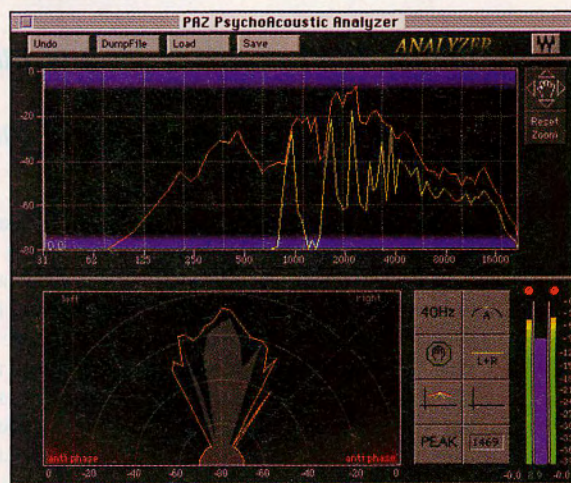
PAZ PsychoAcoustic Analyzer

Waves

There's this little experiment in your basement, it seems, that could use some culture. Having drawn your inspiration from Bach and Vivaldi as well as from Dr. Moreau, you'd like to expose the new friend you've created with your Junior Gene Splicer to the finer points of music. The problem is, you have no idea how your...uh, companion...will react to this broadening of its horizons. What's a deranged scientist to do? Call 800-264-0109, or go to <http://www.waves.com> and plunk down

GET INTO A GREAT AUDIO SPACE.

\$550 for the PAZ PsychoAcoustic Analyzer plug-in. (It works with the Waves MultiRack-Realtime DSP program or Digidesign's Pro Tools or Sound Designer II.) The PAZ PsychoAcoustic Analyzer detects 52 frequency bands, which is very close to what the human ear hears, and turns them into graphs so that you can get a visual sense of what's occurring auditorily. Thus you make adjustments to the space—or the mix—and save yourself trouble down the road. Especially if you-know-what doesn't like what it hears. —David Reynolds



Super-Smart

**"The sure sign
of a sick mind
is a clean desk."**

O r so my father taught me. On the other hand,
my mother is a list maker. Caught
between the two, I binge and purge.

*I begin with a clean enough workspace but
gradually work myself into a hoorah's nest,
both on my physical and virtual desktops.*

*Eventually, the mess grows to a mass so
great that I have to throw it all away lest I
be buried beneath it. (My fellow Mac addicts
will be quick to point out that I binge far
longer than is offset by any purging—though
I'm not the only one guilty of that sin!)*

Whatever your organizational style, your Mac's desktop could probably use an overhaul. Back in the days of 40MB hard drives, to lose a file, you practically had to hide it yourself. Now that a 500MB drive is considered skimpy, and Macs are sporting 1GB if not 2GB drives, you're more likely to find last year's Christmas card list than your latest project. Fear not!

Whether you're the type of person who

makes lists by drawing checkboxes next to your action items, or you're like me and wouldn't know a DayTimer if it bit you in the face, the desktop styles outlined here have elements that will suit any need and aesthetic sense. After implementing the steps laid out in this guide to a super-smart desktop, not only will you have a fresh-looking Mac, but you'll never ask, "Where did I put that file?" again.

**Personalize
Partitions!**

**Formulate
Flexible
Folders!**

Arrange!

Desktops

By Kathy Tafel

Divide and Conquer

The first thing to do when organizing (or reorganizing) your desktop is think about what kind of files you have on your hard drive. Apple preconfigures Macs so that they have a System Folder, an Applications folder, and a Documents folder. Is this how you organize your life? Maybe your Applications folder has instead grown so big that you can't find what you're looking for at a glance. How do you approach this problem? Do these three things:

- Think about what you do most often. Which projects do you work on the most? Which applications do you use frequently?
- Break down your Mac usage into broad categories such as fun, work, or volunteer projects.

● Examine your Mac's current folder structure. Which folders work for you? Which ones are a mess?

Keep in mind that studies have shown that we humans can hold about seven things at a time in our heads without losing track of the items (which is why we have seven-digit phone numbers). Try not to put more than eight things in any one folder, and no fewer than four. Another good idea, given the online world we live in, is to keep a folder called ".downloads" on your desktop.

Use a period or a space to make the folder jump to the top of an Open or Save dialog box (but stay below volume names).

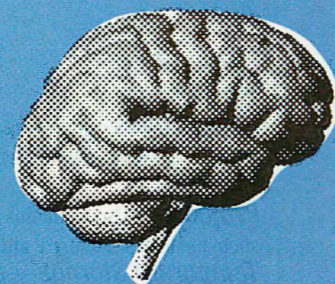
Make all online applications, including Eudora, America Online, Netscape Navigator's temporary folder, and Internet Config, point to the .downloads folder. Put an alias to StuffIt Expander in this folder, too.

If you're satisfied with your organization, skip to the next section. If you need to do some spring cleaning, however, check out the structures that we've created for streamlining folders. Given that we're trying to keep an ideal number of seven folders, and that the System and .downloads folders eat up two positions, here are our suggestions for creating an efficient structure:

*gaze at the
Golden Gate!*

*Enervate
Icons!*

Deranged!



Brain Candy

On The Disc, you'll find these shareware and freeware tools and art to satisfy every desktop need. Versions are indicated with the letter v followed by the version number.

desktop

Tools

- 7Tuner v2.0.2
- Aaron v1.5.2
- AhiTek v1.5
- AliasMenu v1.1
- BeBox Windows v1.2
- BeView v1.1
- ClickChange
- CoolCursor v2.1
- Coops Cursors
- Décor v3.0.3
- Deluxe Folder Icon Creator
- DeskBots v1.0
- DeskPicture v4.5
- Desktop Textures Suite
- DoubleScroll v2.1.2
- Erik's WindowsDEF v1.2
- FilesMenu v1.0
- Folder Icon Maker v1.5
- Greg's Browser v2.5.4
- Greg's Buttons v3.7.6
- Icon Archiver v2.0
- Icon Mania!
- IconArtist v1.1d3
- Kaleidoscope v1.0.1
- Kaleidoscope Extras
- Kaboom!
- Menu Bar Pattern v1.3.3
- Menu Bar Pattern Add-ons
- MyEyes v2.1.3
- Neolcon Fat v0.9.0a1
- Okey Dokey Pro v2.0.2
- Picon v1.3
- TextureMill v1.1

Icons

- 3D Control Panel Icons
- 3D Hard Disk Icons
- BluSkylcons vols. 1 & 2
- BluSkylcons vol. 3
- BluSkylcons vol. 4
- BluSkylcons vol. 5
- C&E Graphics
- Gordo's Zip Disk Icons vol. 1
- Gordo's Zip Disk Icons vol. 2
- Icon Archiver v2.0 FAT
- ikhusian icons
- Jim's Ultimate Trash Icons
- John's PB Icons +
- MacOS Logo Variations
- Mikes PowerMac Icons v97r2
- Monsterfolders

- More Mac Icons
- PERFECT 3d Folder Icons
- Rich's Tons of Icons
- Shiva's 3D Icons vol.1
- Silver2tabCoplandRsrcs
- Trash2Loo

Textures

- 1950's
- Celtic
- CycloDelic Desktop Patterns
- CycloPunk's Textures
- Danimals Textures vol. 2
- David's Textures v1.0
- Erik's Desktop Patterns vols. 1-IV
- Exotic Desktop Patterns
- Exotic Patterns II
- EyePoppers
- GRUBER Patterns Part I
- Harvey's Textures
- Industrial Textures Vol 1 v2
- Kevin's Desktop Patterns
- MacSense's Desktop Tiles
- Mikey's Textures
- NaturesWay
- Nocturnal vol. 1
- Nocturnal vol. 2
- Parchment Patterns 16 bit
- Parchment Patterns 256
- PB Patterns v2.0
- Rich's Clippings
- Shay's Desktop Patterns
- SmileTextures
- Steve's Desktop Patterns vol. 1
- Steve's Desktop Patterns vol. 2
- Ted's Textures vols. 1-10
- Touch-MeTextures vol.1
- Touch-MeTextures vol. 3
- Whammy!Patterns
- Zack's Textures vol. 1
- Zack's Textures vol. 2



FIND THE
SHAREWARE
mentioned
on The Disc.

Setup 1

System Folder .downloads

Applications—Contains subcategories, such as Creation, Diversions, Internet, Text, and Utilities.

Projects—Also contains subcategories, such as Movies, Pictures, and Letters.

Temporary Storage—For items you're not yet sure you'll keep, such as installers, games, and shareware.

This structure is best for people who do tons of wildly different things on their Mac—everything from creating a home page to making maps for Bungie's Marathon to maintaining a fanzine. Items are grouped according to broad, rather than specific, categories. The contents of each volume would comprise other people's top-level structure.

Setup 2

System Folder .downloads

Fun—Houses games and CD-ROMs, for example.

Online—Holds the applications you use online: America Online, Netscape Navigator, Qualcomm's Eudora, and other client tools, and also programs such as Adobe PageMill.

Utilities—Includes those helpful applications that don't easily fit into other categories. The shareware File Buddy, Aladdin Systems' Stuffit Deluxe, Eccentric Software's A Zillion Kajillion Rhymes and Clichés, and Symantec AntiVirus for

Macintosh (SAM) are examples.

Productivity—Holds the applications, such as Intuit's Quicken and Claris Organizer, that you use for work.

Documents—All your documents reside here: your résumé, newsletter, and checkbook, for example.

This structure works for a Mac addict who doesn't create very many documents, or who mainly works on one big project. This person is plenty active nonetheless. Activities range from surfing the Web to playing Microprose's Civilization to balancing a checkbook.

Setup 3

System Folder .downloads

Free For All—Includes a wide variety of applications.

Family Member 1—Includes a wide variety of applications.

Family Member 2—Includes a wide variety of applications.

Family Member 3—Includes a wide variety of applications.

This Mac is used by everyone in the family. Everybody gets their own folder so that Kim's paintings are not soiled by the presence of Freddy's term paper in the same folder. This structure also makes it easier to password-protect an individual folder so that the kids can't access the family financials, for example. Shared applications live in the Free For All folder.

Play the Name Game

Once you've figured out how to organize your folders, consider bumping your top-level folders up to volumes in their own right by partitioning your drive (see "Parts Ain't Parts," below, for more on partitioning a drive). Once you've done that, you're ready to move on to more exciting things, such as naming the volumes.

The act of naming makes the volumes real to you, and makes the Mac your own and no one else's. You'd never remember what was in volumes if they were labeled "Volume 1," "Volume 2," "Volume 3," and so on, now would you? Besides, naming makes you feel powerful—it's one of the first things God told Adam to do besides staying away from some fruit (which couldn't have been apples, right?). Name the volumes something meaningful that will remind you of their contents. (See "Three Perfect Desktops," p36.)

What will aid you the most in remembering your disk contents, though, are icons. On The Disc, you'll find many icon collections to use to personify your Mac. But that would be cheating. It's your personality with which you should imbue your Mac, not someone else's. Turn to "ICONtemplation," p40, for pixel-by-pixel icon-creation tips from *MacAddict's* resident icon guru, Mark Simmons. You don't have to be serious, either. One of our favorite desktops from our premiere issue's Best Desktop Design contest was Patty Minardi's Stuff, More Stuff, and

Parts Ain't Parts

With a hard drive larger than 500MB, you are probably wasting space without even being aware of it. This waste is due to

the Mac OS file system, which has a limitation on how many pieces into which it can divide a volume. (A volume is anything—from a floppy disk to a CD-ROM to a Zip cartridge to a hard disk—that stores data. Each volume shows up on your desktop as a separate icon.) Imagine slicing a small torte and a large pie into quarters. They both have four pieces, but the pie has bigger chunks. Now imagine that this is what the Mac OS does to your hard disk—and the larger the disk, the larger the chunk.

Each time you put a new document or application onto the disk, the file system gives that file a certain number of bytes (a block) on disk in which to store itself. The blocks are all the same size, but it's a sure bet that your file sizes aren't. Even if a file

doesn't use up the whole block, or the file needs one block plus just a few bytes of the next block, the whole block is still reserved for that file, thereby wasting precious bytes of hard disk space.

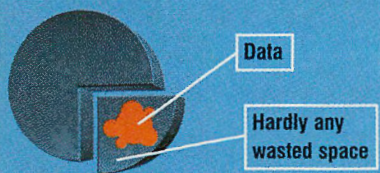
If you have an Apple Macintosh, use the Drive Setup utility on your System disc to partition your hard disk. (This will make the block size smaller and help you organize your files better.) If you bought a Mac compatible, follow the instructions included in the bundle by the vendor. Commercial programs such as FWB's Hard Disk Toolkit, and CharisMac's Annubis have many more options than does the barebones Drive Setup.

Now you need to figure out how many partitions you need and each one's size. After you've organized your disk into its new

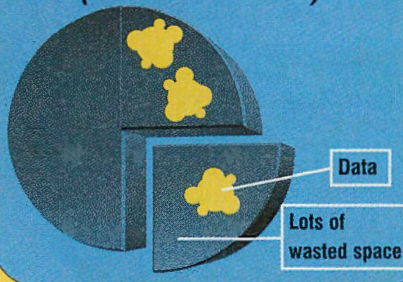
folder structure, see how much space each folder uses. Specify these proportions when partitioning your drive. If you feel wishy-washy, use four partitions, divided as follows: System 10 percent, applications 35 percent, documents 40 percent, temporary storage 15 percent.

WARNING: Partitioning your disk for the first time will erase the data on your drive. Back up everything to a Zip or an external drive. Don't partition your disk without duplicates of your System, applications, and documents. You will, of course, need to be running from a volume other than the one you're partitioning. Your System CD-ROM should work just fine, as it has a bootable System and a drive utility.

Torte (500MB Hard Disk)



Pie (2GB Hard Disk)



Even More Stuff folders, with a giraffe head on the first one, and two lengths of giraffe neck on the other two. (See Dec/96, p52).

Menus, Buttons, and Windows, Oh My!

So now you have a totally clean desktop, with only volumes and the Trash on it. It is fine to use the desktop as a workspace: Put aliases to frequently used items on it, and your current projects. Just be sure to clean it up when you accumulate more than 15 things on it or you'll never get any work done.

With your Mac in order, you can begin to work smarter, not harder, by adding utilities that change your Mac's interface. (Before you add any gadgets to your setup, go through the control panels installed with the System and customize them to your liking. See "Factory Settings," below, for the panels you shouldn't ignore.) Besides making your Mac look sharper, utilities serve practical purposes, too (otherwise we wouldn't call them utilities). For one thing, they can make your Mac's file structure more accessible. Utilities make files dance beneath your mouse in three ways: Menu utilities add functionality to the menu bar; toolbars hover over the screen waiting for a click; and window gadgets change the way windows work.

Which navigation method is best for you? If screen real estate is at a premium, try organizing your files by menus. By putting aliases to your hard disks (or top-level folders) in the Apple menu, you have access to all files immediately. This method works best if you have a relatively flat folder structure as described in the second organizational method above. Otherwise you'll be navigating menus all the way across the screen and back, as they build on each other 10 levels deep. Using this method, however, actually takes more time than using a button bar: You must click, drag, and let the mouse go, whereas with the button bar, you just click and let go without any drag slowing you down.

We're not sure what all the hullabaloo is over in regard to Apple looking outside its walls for operating system technology. If you think back to 1994, Apple licensed a passel of shareware utilities for inclusion with System 7.5. One of them was Apple Menu Options. This utility makes the Apple menu hierarchical, which means that any folder put in the Apple Menu Items folder in the System Folder will show its contents in a submenu. It also tracks recently used applications and documents. Apple Menu Options

Picture Perfect

Plenty of utilities change the way your desktop looks. We've found the shareware program DeskPicture to be the most stable. DeskPicture displays any picture as a single, large backdrop. If the

image you select doesn't have the same pixel dimensions as your monitor resolution, the utility either adds black around the edges to fill in the monitor's screen or lets you distort the image.



WHATTA VIEW! Use Sundial to gaze at the Golden Gate Bridge and beautiful San Francisco all day long.

Be wise and crop the image to fit before you add the picture. Don't forget that the menu bar is 20 pixels high and will obscure the top of the screen.

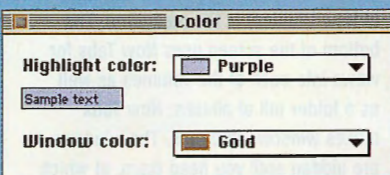
The ultimate program for creating backdrop pictures, however, is a commercial program from the author of Software FPU. Sundial cycles through pictures of the San Francisco Bay area at various points through the day, from sunrise to sunset, according to your Mac's clock. Our only quibble with the program is that it doesn't take the season into account, too, so at 5 p.m. one day last December, the program thought it was still light outside. Oh well.

desktop

Factory Settings

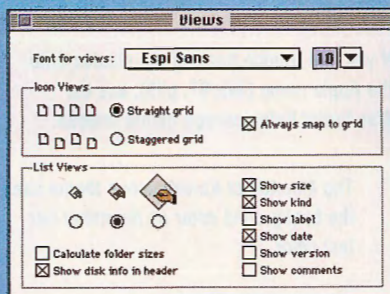
You can change the appearance of your Mac in lots of ways without adding utilities. All you need to do is tweak the settings of the following control panels.

Color

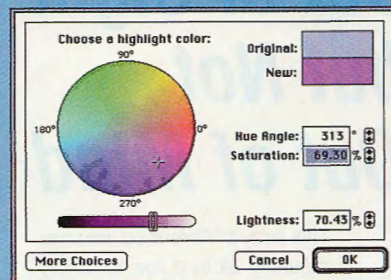


THE COLOR CONTROL PANEL changes the color of highlighted text and window borders. It's much easier to read text that is black against a colored background rather than inverted (white on a color).

Views

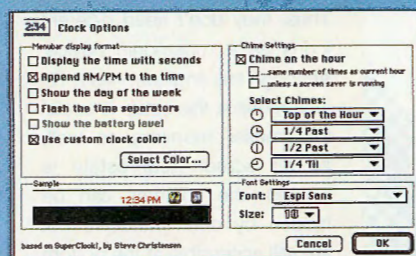


GO CRAZY! Change the font your Mac uses in the Finder. Choosing the middle (just right) size for list views allows you to see more information about files than just whether they're documents or applications. If you never label anything, uncheck that box to save space in Finder windows.



USE THE PRESET COLORS or choose your own (using the Other... option on the pop-up menu) with this color wheel. Choose a color with more than 50 percent lightness so the black text shows up against it. Fiddle with the hue and saturation values until you find a pleasing color.

Clock



HERE'S YET ANOTHER UTILITY added to System 7.5. (The Menubar Clock options are in the Date & Time control panel.) You don't need to keep the clock in old, black Chicago. Change it to a modern font like Espl and make it bright red or blue. The clock will also chime a system sound on the quarter hours if you tell it to.

Three Perfect Desktops

A perfect desktop is more than just the sum of its parts. Whether you prefer a sleek, modern, analytical interface, or a wacky, bright collage. Any way you add it up, when you've done everything we tell you to, your desktop may have the gestalt of one of these masterpieces.

Each volume name used to be a folder name on a smaller disk. The custom icon is part of the Aaron package. (OK, we cheated—some of the icons should have the "open" look.)

Aaron provides the gray menu bar, Espi menu font, and window border changes.

Aaron also changes folder icons into a fun 3D blue.

Stock desktop pattern.

1.

THIS ENGINEER WANTS NO DISTRACTIONS when he works on the next killer app.

Out of Sight but Not Out of Mind

This array of Aaronified volumes mounted all in a row is simply the result of an optimally partitioned 2GB internal drive and 2GB external drive (for toting to the office) and a Now Utilitized Mac. With a desktop like this, you never need to open any of the volumes by double-clicking them, because all windows are already open in Now Tabs. Thus, they don't need different icons as a mnemonic device. Although this engineer has a 17-inch monitor, this setup is useful for smaller monitors as well, as no screen real estate is wasted—the volumes can be hidden by open windows but are still accessible at the bottom of the screen.

Tools needed:

- Aaron: \$10 (shareware)
- Now Utilities: \$90 (street)

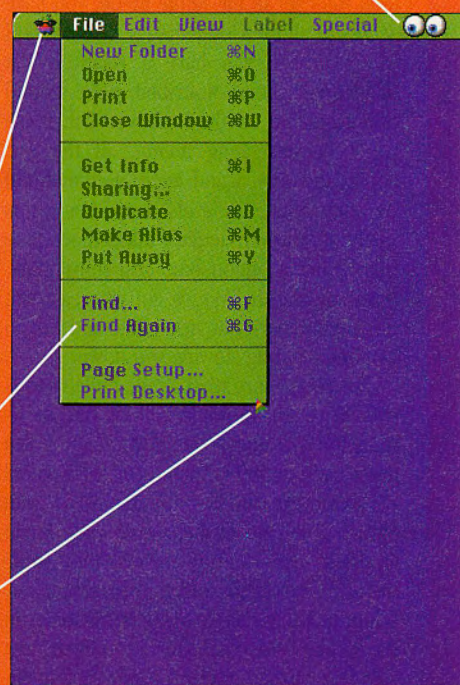
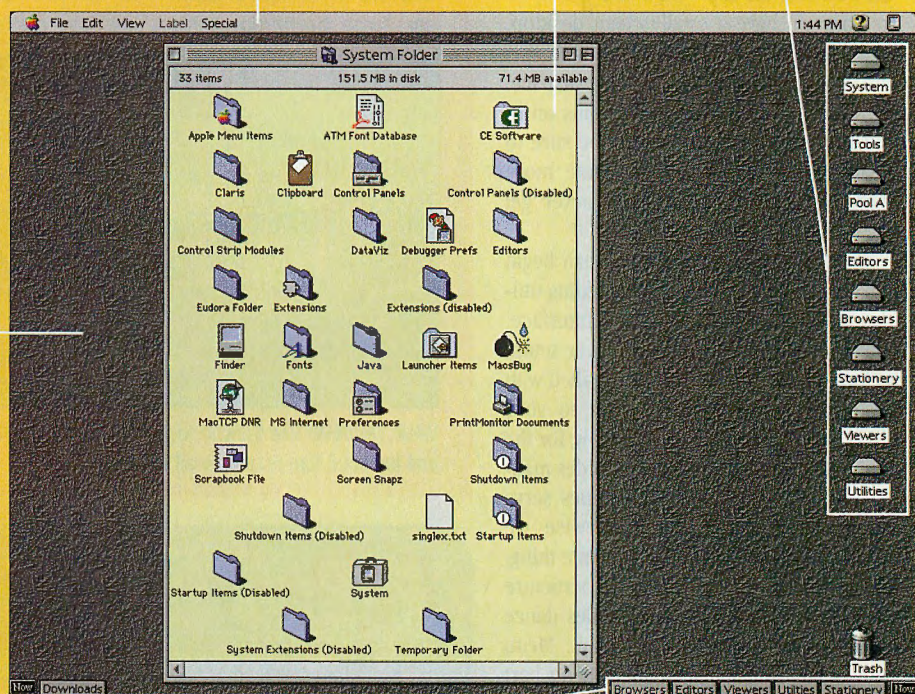
This engineer really wants Tempo's drawers but settles for Now Tabs (part of Now Utilities) in the meantime. The bottom of the screen uses Now Tabs for views into each of the volumes as well as a folder full of aliases. Now Tabs makes windows into tabs. The windows are hidden until you need them, at which time they're a click or a drag away, not buried somewhere on your disk.

If you had trouble hacking the shades onto the Apple menu (Jan/97, p39), use the *MacAddict* Kaleidoscope theme instead.

The *MacAddict* Kaleidoscope theme uses the background color as the menu bar text color.

An animated cursor, courtesy of the freeware program *Cursor Animator*, brightens the standard black arrow into a colorful rainbow. This Mac addict bleeds in six colors.

My Eyes shareware tracks the cursor from a spot on the menu bar.



THE FUTURE is way too bright!

Artsy but Not Pretentious

This is it. My Mac's desktop. No dry volume names of the engineer for me. Years ago, Mark Simmons made an awful pun on my name: MephisTAFELes. I've kept the name but truncated it to Mephisto for space's (and obfuscation's) sake. Mephisto sufficed until I recently broke down and partitioned my drive. I then had to think of appropriate names for the other partitions. The System deserved the Mephisto moniker, as it's the brains of the operation. Applications do things and get into trouble when they misuse the System, so partnering Mephisto is Faust. My projects comprise primordial Stoff, the German word for material. Temporary files such as downloads are consigned to Limbo, of course.

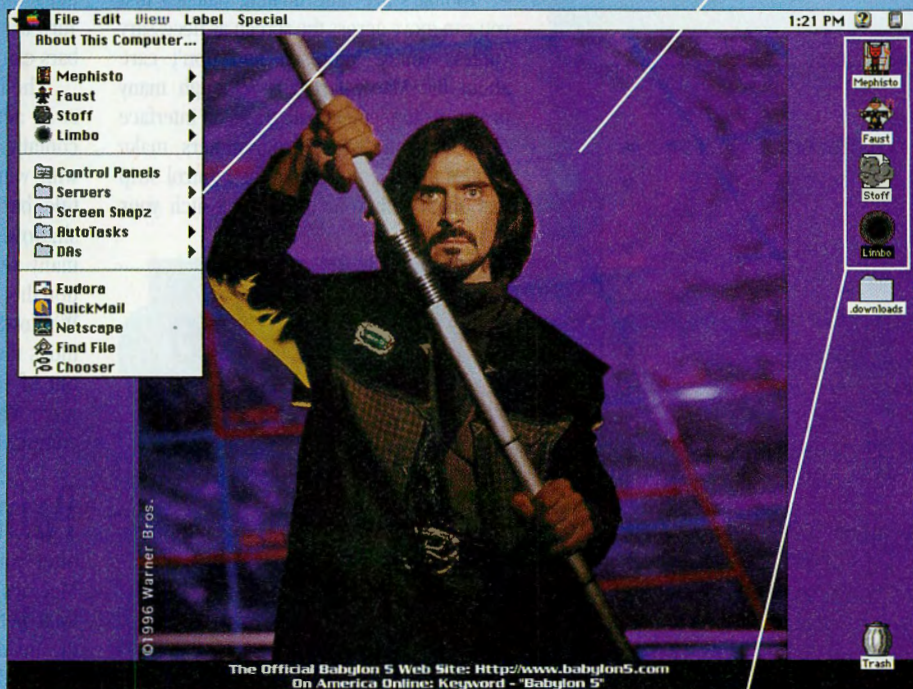
Tools needed:

- Now Utilities: \$90 (street)
- DeskPicture: \$19.95 (shareware)

Now Menus tracks my recently used applications and attaches recently used files to them.

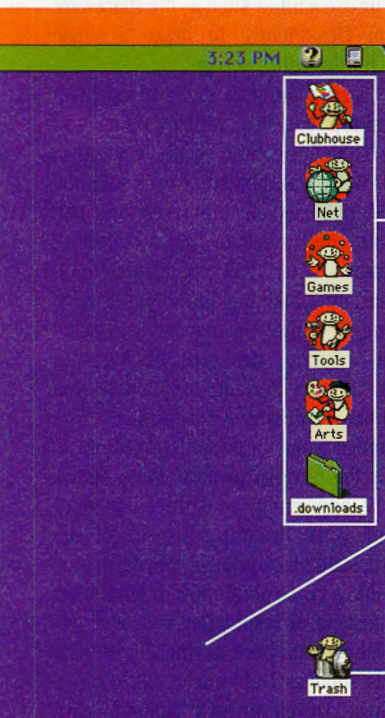
My Apple menu is organized using Now Menus with aliases to my volumes at the top, then frequently used folders, then frequently used files. This organization means I never have to make an alias again. Also, Now Menus lets me drag files onto this hierarchy for insta-filing.

I use the shareware program DeskPicture to display an image from my favorite TV show. (What can I say—I admire a guy who speaks softly!) The official *Babylon 5* Web site has tons of images that you can download for your personal use.



JOIN THE KATHY TAFEL CULT of personality.

My volumes sport icons appropriate to their names, to aid in recognition. Note that the icons have a System, application, and document icon in the background, which further serves as a mnemonic device.



The disk is partitioned into five volumes. The .downloads folder actually resides on the Clubhouse volume. The icons were designed by Mark Simmons for the *MacAddict* Web site.

The purple desktop pattern rounds out the picture.

Max is hiding in the Trash and pops out whenever you feed files to him. This is a feature of the *MacAddict* theme.

2.

Mac Addict to the Max

Only the most dedicated Mac addict will be able to stand this desktop for long. It might seem gaudy (who decided to combine purple and green anyway?), but this desktop is a model of efficiency. Every file is a single click away, lurking behind our mascot, Max. We've included the *MacAddict* color theme, icons, and desktop pattern so you, too, can be a Mac addict to the max.

Tools needed:

- Kaleidoscope: \$20 (shareware)
- *MacAddict* Kaleidoscope theme available on the Web site.
- *MacAddict* icons on The Disc.
- *MacAddict* desktop pattern on The Disc.
- My Eyes: \$10 (shareware)
- Cursor Animator: Freeware

Bar None

Gaining access to your disk via menus is fine for people who want everything hidden out of the way. If you want your folders, files, applications, stationery, and even Internet URLs just a click away, use a button bar such as the shareware DragStrip, One Click, or DragThing.



BE HIERARCHIC DOESN'T let you order items one by one, but you can choose the order in which different kinds of items—folders, disks, applications—are sorted.

is a fine utility if you don't plan to navigate your file system via menus and have just 15 or fewer items in the menu. If your Apple menu has more items in it, however, check out "Bill of Fare," below, for ideas on how to tidy it up.

Toolbars are little floating palettes that you can move across the screen as necessary (unless you're Microsoft and don't care about the Mac interface). Although many programs implement palettes as an interface element, some swell programmers make utilities that are universal. The control strip that ships with your Mac can switch your

monitor resolution on the fly, as well as toggle your sound. Third party modules, such as Control-Strip-Module for OT/PPP, let you start a PPP connection, among many other things. But a bar full of controls doesn't help you navigate the file system; you need something that can track files and folders, too. Turn to "Bar None," above, to see how toolbars can help simplify your life.

The last way to navigate your file system is by actually looking at the windows that contain the files. There's nothing wrong with windows sporting a purple and gray title bar attached to a black box with a shadow. That design has sufficed for many years now. Apple added some functionality to windows in System 7.5 with WindowShade (double-clicking the title bar hides the rest of the window). To get more out of your windows, try using the shareware Kaleidoscope or the Now Utilities component Now Tabs.

Bill of Fare

Your ordinary Apple Menu Options is a perfectly good utility, but it lacks customizing options. For a finely tuned Apple menu, you need a heavy-duty utility such as the shareware Now Menus or Be Hierarchic. These programs let you add separators to the Apple menu and sort the order of items in it.

Speaking of the Apple menu, you should open up the Apple Menu Items folder in your System Folder and clean it out. Throw away desk accessories you don't need. Keep only those you use regularly, and put the ones you use infrequently, such as Key Caps, in a folder (I call mine DAs, but then I'm anachronistic). You should also put aliases to your volumes in the Apple menu.

Paint the Town Red

After you've created a completely efficient Mac, it's time for some fun. Make your Mac look better with a fresh coat of paint (on the inside, not the outside—that's a completely different story). The largest canvas you have is the desktop itself. Either use the Desktop Patterns control panel installed with System 7.5 to tile a pattern across the screen or use a utility such as the shareware program DeskPicture to make a single picture fill the entire screen.

The easiest thing to do is to open up the Desktop Patterns control panel and choose something besides the Macintosh default. When you become bored with the supplied patterns, or don't see one that suits you, you'll need to find a source of new patterns. See "Painting Pixels," p39, for ideas on obtaining more patterns. If the tiling is tiring, you may want to use a picture as the desktop background instead. "Picture Perfect," p35, shows you how to hang a picture on your Mac.

Although your desktop background is certainly the obvious place to start, there's plenty of opportunity to spruce up other parts of your desktop. Instead of the standard, staid black pointer, transform your cursor into a colorful rainbow or slick silver arrow. Instead of responding with a simple beep, Hal can talk back to you. Commercial products such as Dubl-Click's ClickChange and Nova Development's Kaboom and Zonkers make these changes and more.

Software That Helps

In addition to the shareware and freeware utilities mentioned in the article, we used the following commercial products. Where possible, demos of these programs are also on The Disc.

Anubis
CharisMac
916-885-4420
<http://www.charismac.com>

ClickChange
Dubl-Click
541-317-0355
<http://www.dublclick.com>

Hard Disk Toolkit
FWB Software
415-463-3500
<http://www.fwb.com>

Kaboom!, Zonkers!
Nova Development

800-395-NOVA
<http://www.novadevcorp.com>

Now Utilities
Now Software
800-730-7854
<http://www.nowsoft.com>

Sundial
John Neil & Associates
800-663-2943
<http://www.jna.com>



ONE CLICK'S SYSTEM BAR has widgets for everything up to and including the kitchen sink. One Click also has a process bar, which tracks open applications, and a launcher bar.

A Word to the Wise

All these nifty tweaks to your Mac's look and feel come at a price. Almost every utility you add to your System exacts a toll in RAM or speed, if not both. Every custom folder icon you use makes the Finder read it from disk rather than in system memory. Utilities that change the way the MacOS operates may not only eat up gobs of RAM but potentially slow down your current project.

This slowdown happens because of the way the Mac currently multitasks. Applications ask the System for events to process and, at the same time, give up control to the background apps for processing. The more operations going on in the background, the fewer processor cycles are available for the front-most application and other background processes.

In addition, utilities can conflict with each other and with the System. If you've upgraded to System 7.6, make sure that any utility you use is compatible. Also, don't load utilities that do the same thing at the same time. Installing Apple Menu Options, Be Hierarchic, and Now Menus is a recipe for disaster, as is putting SunDial, Desktop Patterns, DeskPicture, and Wallpaper together. Just don't do it! To catch the conflicts, and to get the extra cycles back when you need them (such as when you're playing a game), create several extension sets: one that has your completely modified System, one that's barebones, and maybe an alternate set that looks cool but doesn't take up 5MB of RAM.

Hopefully, your Mac's desktop now not only is clean and efficient but also reflects *your* personality. With a super-smart folder structure, the next time your desktop sprouts 40-some documents, it won't be as hard to bring under control. (Which means you can keep putting it off, since it's such an easy task.)

After 10 long months at *MacAddict*, associate editor Kathy Tafel was forced by rabid coworkers to clean up her act.

Painting Pixels

Once you've exhausted all the desktop patterns that we've included on The Disc, you should be ready to make your own. Here's how to minimize tiling effects when you paste in your pattern.

Step 1: Create the canvas

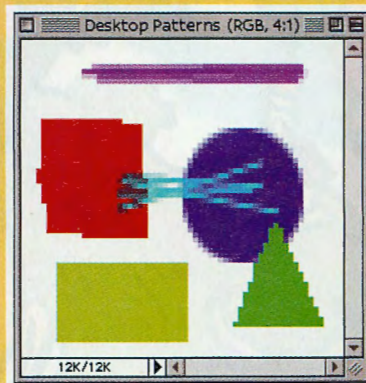
Open an image-editing program. We used Adobe Photoshop. Create a new file that is 64 x 64 pixels. Because I'm not an artist, I stuck with geometric shapes. Create some simple shapes. If we used this image as is, it would be easy to see where the edges of the tile are, and we don't want that.

Step 2: Disguise the edges

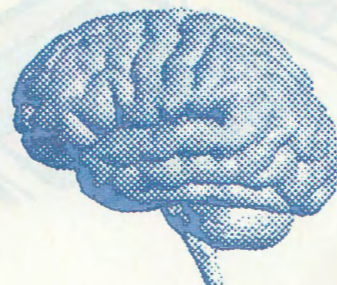
To hide this edge, use the offset filter to move the image about 20 pixels up and 20 pixels over. Then fill in the white space with more of the pattern.

Step 3: Admire your work

Change the image to indexed color in the Mode menu using the System palette. Finally, paste the pattern into the Desktop Patterns control panel. Now you have a seamless tile.



MANY BIZARRE TEXTURES, such as this one from Bruce Heavin's collection, can be found on The Disc.



icon poplution



By MARK SIMMONS
ILLUSTRATION BY LLOYD DANGLE

32 X 32? IF
ICON DO IT,
SO CAN YOU!

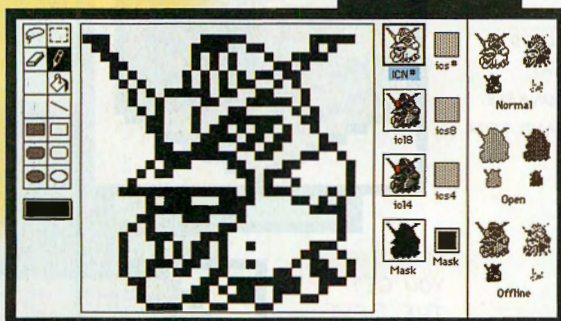
So, you want to become a master icon crafter, a pixel-pickin' Picasso? True greatness may come from within, but here are a few tips to set you on your way to mastery of the 32-x-32-pixel canvas. For the purposes of this discussion, we'll deal with ResEdit's lowest-common-denominator icon editor. There are several sophisticated third-party icon editors, such as Zonkers! (Nova Development, 818-591-9600, <http://www.novadevcorp.com>), IconMania! (Dubl-Click Software, 541-317-0355, <http://www.dublclick.com>), and the built-in icon editor in Resorceror (Mathemæsthetics, 303-440-0707, <http://www.mathe.maesthetics.com>), but for the most part, they share ResEdit's basic functionality.



GETTING STARTED

No matter how small, a blank canvas is never a pleasant thing to confront. I always find it easiest to start with a black-and-white illustration and add color afterward. Working in black and white may seem a bit of a constraint, but trust me, it's far less bewildering to work with the limited options available in the monochrome world than to wade into a mess of color from the get-go.

B&W



AFTER LAYING OUT THIS ROBOT'S HEAD IN BLACK AND WHITE, COLORIZING IT IS RELATIVELY TRIVIAL. I SHUDDER TO THINK OF DRAWING IT IN COLOR FROM SCRATCH.

COLOR



To begin, launch ResEdit and choose New... from the File menu. In your new file, choose Create New Resource from the Resource menu and choose ICN# from the list of resource types. This will create a new icon family, placing you in the larger of the black-and-white fields of ResEdit's familiar icon editor. Start work in the ICN# field, then copy your monochrome icon

into the ICL8 field to work on the large 256-color version (you can do this by simply dragging the ICN# thumbnail on the right onto the ICL8 thumbnail).

HOW MANY POSSIBLE BLACK-AND-WHITE ICONS ARE THERE? BY MY CALCULATION, TWO TO THE POWER OF 1,024—WHICH COMES TO JUST OVER A THOUSAND BILLION BILLION UNIQUE ICONS. SO AS TEMPTING AS IT IS TO CREATE A RANDOM-ICON GENERATOR, YOU'RE BETTER OFF USING YOUR ARTISTIC INSTINCTS.

DESIGN CONSIDERATIONS

Before you do too much work on your drawing, take these tips and hints into consideration. Even if you're an accomplished artist, you'll find that working in a small square is different from working on a screen-size canvas. And because the resulting icon will be small, you face even more constraints.

1. Keep it simple. It's possible to make your icon incredibly complex—witness this full-body velociraptor—but I don't recommend it. The more detail you cram in, the less satisfying the result when you see it on the screen. Better to keep it simple, and if your goal is to depict a person, creature, or complex object, stick to head shots and close-up details.

*THIS SAVAGE
PREHISTORIC
PREDATOR
TEETERS AT
THE BRINK
OF LEGIBILITY.*



2. Fill the space. Another hazard of overly complex icons is that they may not fill the space well. Before sitting down to draft a fountain pen, a shark, or a giraffe, see if you can think of a way to fill the square canvas. For example, the giraffe could be grazing on tree branches, the pen grasped in a hand or writing on a sheet of paper, the shark shown up close, *Jaws* style.

*AT A
45-DEGREE
ANGLE,
THIS CRATE
IS SMALL,
STRANGE, AND
UNPLEASANT
LOOKING.*



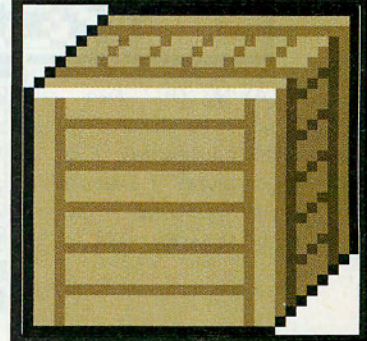
3. Add perspective. A more subtle application of the space-filling rule applies to "3D" icons. You can create beautiful effects with three-quarters views of three-dimensional objects, but if you lay out all your lines at 45-degree angles, you'll end up with a small object and a lot of white space. For a more satisfying effect, try leaving one face flat or using a more gentle slope (two pixels across for every one up is my favorite).

*THE GENTLER
SLOPES OF
THE SECOND
BOX ARE AN
IMPROVEMENT
AND LEND
IT THAT
FASHIONABLE
COPLAND LOOK.*



*THE MORE DETAIL
YOU CRAM IN, THE
LESS SATISFYING
THE RESULT
WHEN YOU SEE IT
ON THE SCREEN.*

*YOU GET
THE BEST
RESULTS
BY LEAVING
THE FRONT
FACE FLAT.*





A DASH OF COLOR

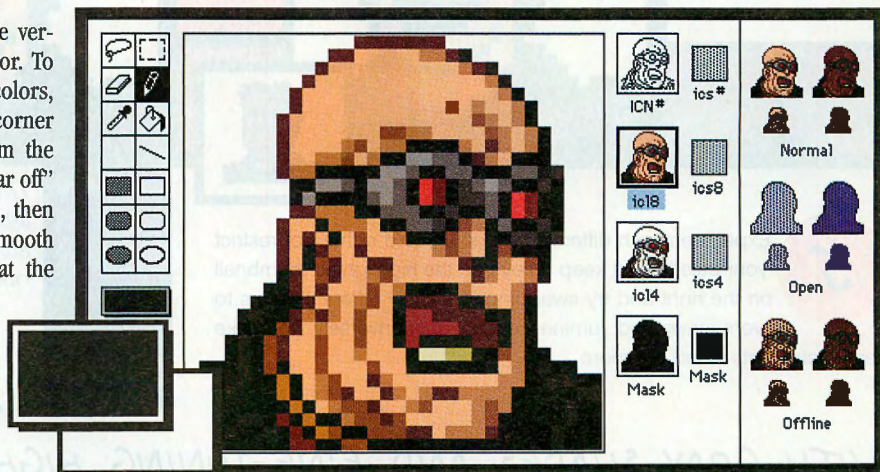
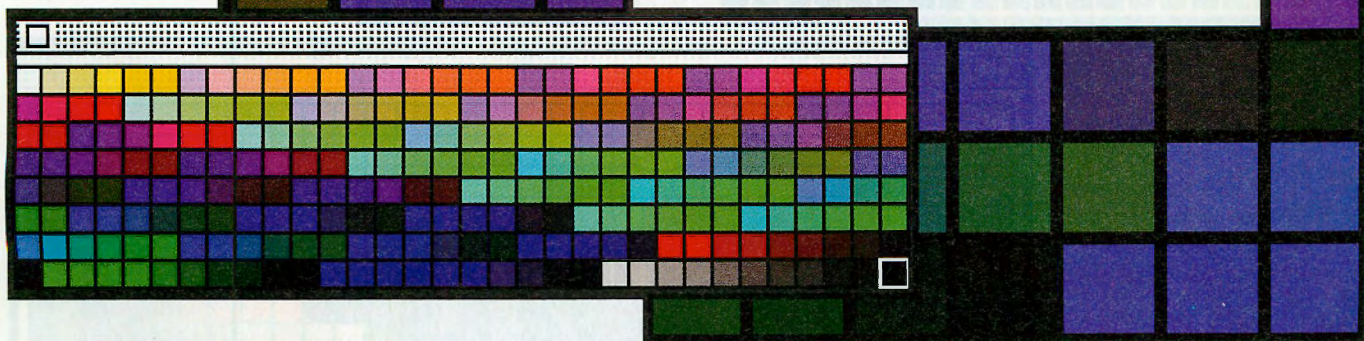
OK, so you've perfected the black-and-white version. Now let's get wild and crazy with color. To select your foreground and background colors, click on the colored squares in the lower left-hand corner of ResEdit's icon editor window and choose from the palette—or click and drag out of the window to “tear off” a floating palette. Start with simple bulk-color fills, then tweak the pixels to add shading and highlights, smooth the lines, and clarify details. You'll be amazed at the difference a change of color in one pixel can make. Keep an eye on the actual-size thumbnails as you refine your work.

1. Use grays and dark colors to soften lines. This acts like a manual anti-aliasing process. You may also want to redo some of the black lines in lighter colors for a more subtle effect.

2. Use the correct light source. An often-neglected principle in icon colorization is shading; in particular, the source of the light. According to Apple's Human Interface Guidelines, Macintosh interface objects are supposed to be lighted from the upper left; note the shadows cast by windows. If you wish to apply highlights and shadows, be sure to adhere to this convention, or there'll be something funny about your icons that you'll never quite be able to put your finger on.

THE APPLE ICON COLORS PALETTE CONSISTS OF 34 TRIED-AND-TRUE COLORS.

BUT IT CAN'T COMPETE WITH THE 256-COLOR RICHNESS OF THE STANDARD 256 COLORS PALETTE.



USE DARK SHADES OF BROWN AND GRAY TO TURN HARSH LINES INTO MORE NATURAL-LOOKING FACIAL FEATURES.

3. Clean up icon masks. Use colors that act properly. We've warned you in the past about the tricks of icon masking (see “How to Customize Icons,” Oct/96, p76). The icon mask tells the Finder which parts of the icon should block out the desktop. You can create a workable mask simply by dragging the ICN# or icl8 thumbnail onto the mask thumbnail, but if your icon has irregular edges or has holes and gaps inside it, you'll need to edit the mask manually to achieve the desired results.

4. Use colors that highlight properly. In a similar vein, let's consider what happens to your icons when they're selected in the Finder. Most colors darken to indicate selection, but a stubborn few light up in an annoying fashion. To play it safe, you can use the Apple Icon Colors palette (available from ResEdit's Color menu). These colors all are guaranteed to darken correctly when the icon is selected.

WANT WHITER WHITES? WOULD YOU LIKE YOUR TEETH TO RADIATE WHEN YOU SELECT YOUR OWN FACE?



TRY A LIGHT SHADE OF BLUE INSTEAD OF THAT BORING WHITE.

5.

Experiment with different colors. If you'd rather not restrict your palette, just keep an eye on the highlighted thumbnail on the right and try swapping in slightly different colors to prevent unwanted luminescence—or, conversely, to make certain elements stand out more.

AS YOU'RE TINKERING

WITH GRAY SHADES AND FINE-TUNING HIGHLIGHTS, BE SURE TO TAKE ADVANTAGE OF RESEDIT'S TOOLS SHORTCUTS.

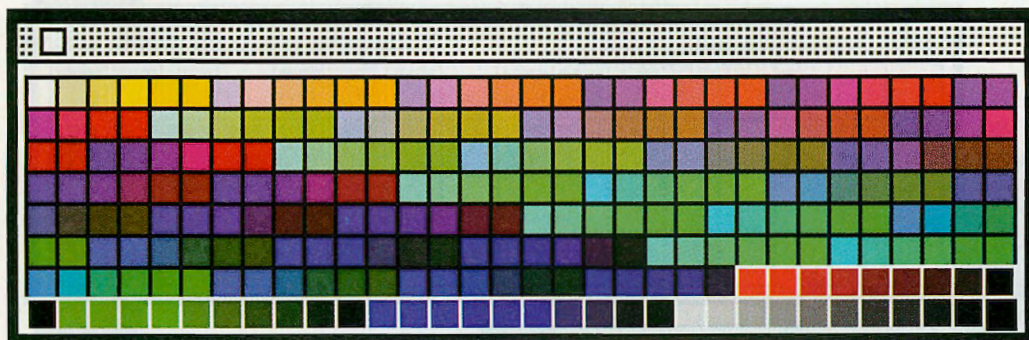
6.

Avoid dithered colors—this is a tip for anyone crafting icons for use on a Web page. (Yours truly uses ResEdit to draw all the icons for the MacAddict site.) Remember Netscape Navigator's (in)famous 216-color palette? Used when your computer is running in 8-bit color, this palette includes only those of the Mac's standard 256 colors that are also available on Windows (see Nov/96, p100, for a refresher). The 40 colors in the Standard 256 Colors palette that aren't included in Navigator's will be grotesquely dithered if you use them in your Web site graphics, and among them is the series of grays on the right-hand side of the lowest row of the palette. To minimize dithering, stick to the four shades of gray buried elsewhere in the palette.

7.

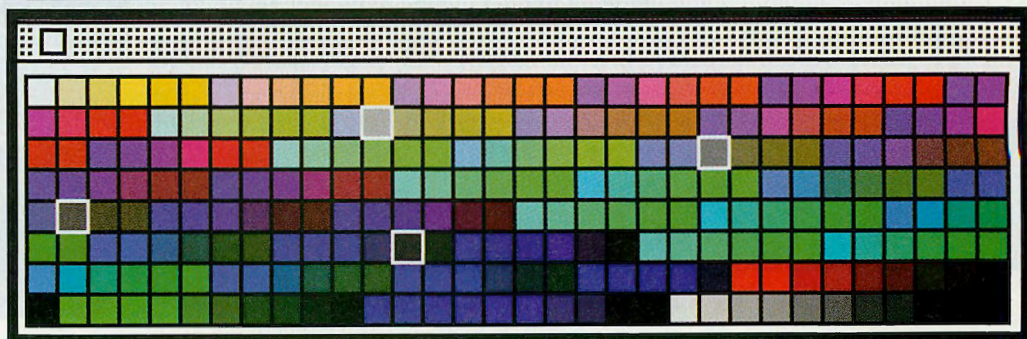
Use shortcuts. One last word of wisdom on the subject of color. As you're tinkering with gray shades and fine-tuning highlights, be sure to take advantage of ResEdit's tools shortcuts (also present in some third-party icon editors). As in many paint programs, you can "pick up" colors as you draw by holding down the Option key; your pen or paint bucket turns into an eye-dropper, allowing you to switch colors by clicking on the colored pixel of your choice.

Even better is the ability to change colors globally. Select the yucky old color, hold down the Command key, click on the color square on the left of the window to bring up the color palette, select the new color, and then release. Voilà, instant redecoration.



WEB DESIGNERS, TAKE NOTE: THESE 40 COLORS ARE OFF-LIMITS, UNLESS YOU'RE PREPARED TO BRAVE THE AESTHETIC PERILS OF DITHERING. THE BLACK SQUARE IN THE LOWER-RIGHT CORNER IS OK.

STICK TO THESE FOUR GRAYS AND ESCHEW THE TEMPTING ARRAY ON THE LOWER RIGHT OF THE PALETTE.



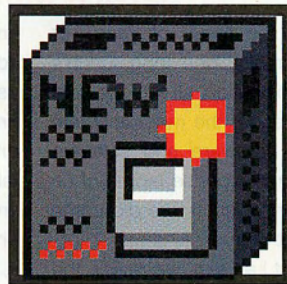
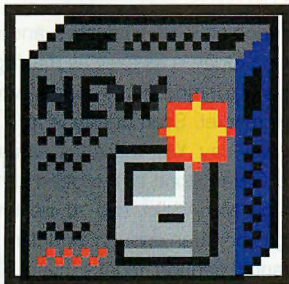


FINISHING TOUCHES

When you've colorized your icon to your heart's content, it's time to attend to the little finishing touches.

Creating a 16-color icon is as simple as dragging the thumbnail of your color version to the icl4 thumbnail. Don't waste time tweaking the colors here, because most modern Macs don't support 16-color mode anymore. If a color grossly offends you, hold down the Command key and use the global color-changing trick described above.

Then there's the small icon version. This is a bit more important, because if you're using the icon in the Finder, you'll likely have to look at the small version in a list view or in a menu—better

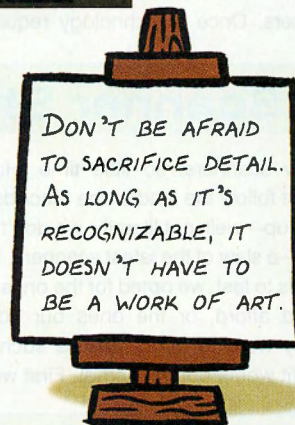
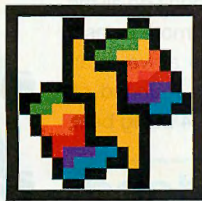
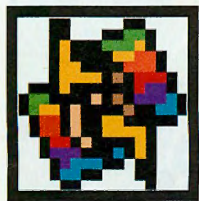


THE COMMAND-KEY COLOR-CHANGING TRICK TURNS A GARISH AND UNSATISFACTORY 16-COLOR VERSION INTO A TASTEFUL GRAYSCALE TREAT.

make sure it's something you can live with. My recommendation: Just drag the thumbnail of the full-size version to the small icon field and spend a couple of minutes on cleanup. Don't be afraid to sacrifice detail. As long as it's recognizable, it doesn't have to be a work of art.

Mask your icons properly, as described above, and your masterwork is ready for desktop duty.

A LITTLE BIT OF CLEANUP TURNS THE SMALL ICON FROM A MISHMASH OF PIXELS INTO A CHARMING, ALBEIT MINIMALIST, MINIATURE, EVEN IF I DID HAVE TO SACRIFICE THE HAND FOR CLARITY'S SAKE.



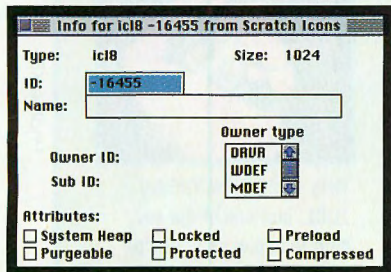
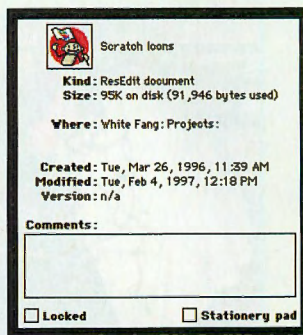
GOING PUBLIC

Now, as with a fine painting, it's time to display your icon for your adoring public. Wine and cheese are optional.

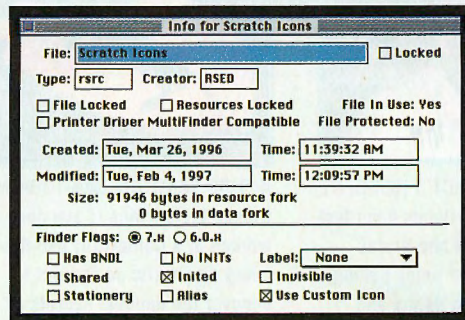
If you don't have a third-party icon management utility to help you transfer and apply icons, here's a quick trick to get your new icon into the field. Within ResEdit's icon editor,

choose Get Resource Info from the Resource menu and change the number in the ID field to -16455. Close the Info window, clicking Yes when ResEdit asks you whether you want the change to apply to the entire icon family. Then go to ResEdit's File menu and choose Get Info for (name of current file)—and check the Use Custom Icon box.

THROUGH THE FINDER'S GET INFO WINDOW, YOU CAN COPY AND PASTE ICONS AT WHIM. A BOX APPEARS AROUND THE ICON WHEN YOU SELECT IT.



CHANGE THE ID OF YOUR ICON FAMILY. DO THIS WHILE THE ICON EDITOR WINDOW IS IN THE FOREGROUND, OR YOU'LL CHANGE THE ID OF JUST ONE PERMUTATION OF THE ICON.



TELL YOUR WORKING RESEDIT FILE TO USE THE CUSTOM ICON YOU'VE JUST COMPLETED.

Your ResEdit file now has a custom icon, but the icon may not display right away. If you're impatient, duplicate or copy the file, and your icon will manifest itself immediately. You can now copy and paste the icon willy-nilly. Select your icon-bearing file in the Finder, choose Get Info from the File menu, click on the icon in the upper left-hand corner, and copy the little devil. Then select your target file or folder, Get Info, select its mundane current icon, and paste, paste, paste!

Online editor Mark Simmons got bit by the color icon bug back in the days of System 6. He considers built-in support for color icons to have been the single greatest advance of System 7.



Welcome to

MacAddict Lab

If it's good enough for us, it's good enough for you.

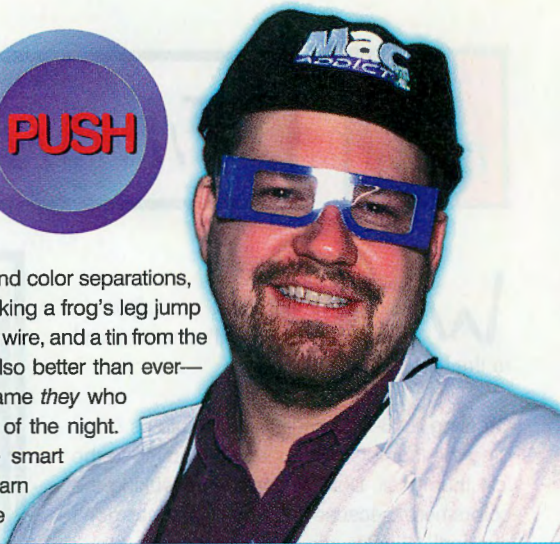
PUSH

"Service with a smile."

The MacAddict Lab is the result of years, or months maybe, well, really, one long lunch's worth of planning and execution, all with the goal of bringing to the MacAddict reader the most accurate measurements of Macintosh hardware and software available today. We've spared no expense (some of us had the special seafood platter) or effort (we *did* come back to write this) in our pursuit of truth.

For our premiere MacAddict Lab test, we review the latest scanners. Once a technology requiring arcane

knowledge of SCSI, bit depths, and color separations, scanning today is as easy as making a frog's leg jump using only a lemon, some copper wire, and a tin from the French market. Scan quality is also better than ever—or so *they* say. Yes, that's the same *they* who talk to Oliver Stone in the dead of the night. Trust the MacAddict Lab to be smart enough, thorough enough, and darn it, paranoid enough, to take these claims to task. —D. D. Turner



MA LAB

Scanner Shootout (Bang! Pow! You're Dead! No, You're Dead First!)

So many scanners, so little time. How do you choose? Just follow the lead of the MacAddict Lab.

We lined up—well, not literally, we don't have much desk space—a slew of the latest scanners. In choosing which models to test, we opted for the ones an average reader could afford, or the ones our editors could afford if they were to forgo luxuries such as rent or PowerBars (it works out the same). First we evaluated

the units on nonfunctional criteria (see chart), then set them up and ran a series of crucial tests (see chart again, OK?). Next, we compared scan quality with a digital photo, with surprising results (no, don't go all the way over there now). Finally, we input all (more or less) of the data into our scientific formula to arrive at an unbiased, reliable rating, which we then rounded off arbitrarily to a MaxBench rating of 1 to 4, 4 being best.

Max Bench Rating



Which way to the beach?



I think I got it...



Quick! I need a spot!



OOOF!

MA LAB

Walking Through a Techie Wonderland



"I just enjoy pulling the lids off these things and poking around inside...Sometimes I'll hide something in there or leave something out as a joke."



DAVE, MACADDICT'S RESIDENT LAB TECH approaches each test with enthusiasm and professionalism: "I just enjoy pulling the lids off these things and poking around inside. You never know what your going to find."



IN THIS SANCTUM SANITORIUM, trained technicians (Dave once worked at a CompUSA) use the latest diagnostic equipment to uncover the deepest secrets of every chip and squeeze the last megahertz from a Mac.



THIS PRECISION TIMING TOOL, just one of the key, high-tech pieces of equipment in our arsenal, was made specially by one of the world's largest chronometer companies.

Because this is the first appearance of the shiny new world of the MacAddict Lab, we thought we'd give you a tour. Right this way, please....

Set deep within Fortress Imagine, the lab occupies the newest wing of the complex (we have a room). We've soaked, we've scrubbed, we've even eliminated Ring Around the Room. Here's the final result—our "clean" room (at least, it's the cleanest room we have).

Note that we use only the latest and greatest testing equipment to ensure that our results are totally accurate. This is high-powered gear that you can't find just anywhere, folks!

Photos:KB

Image is Everything

In the final judging, it all comes down to image quality, doesn't it? Well, more or less, doesn't it? Just go along here, alright?

Anyway, we tested the quality of each scanner's image reproduction by taking photographs of various *MacAddict* team members and comparing these with the scanned versions of the same images. In each case, we were disappointed by how little the scan resembled the original photo. These scanners must be doing something really wrong. Some scans showed spots of decent flesh tone, but that might be attributable to the fact that those people had better complexions.

How We Tested

A lot of magazines show you fancy pictures of fruit baskets or of someone's whining brat. Well, we just used our own whiny selves.

To test scanners, we first used a Quick 'n' Easy Bake digital camera to take a photo of as high resolution as we could (at least we think that's what that control meant) of a *MacAddict* staff member's face.

Next we placed the team member's face on various scanners and let the machines do the work.



Just the Facts

	Apple Color Whatever	Epson Discretion	LaCie Cubic Zirconium	Umax MeOut	HP ScanPet	Agfa NoAcronym
Monolith Factor ¹	76%	88%	81%	87%	95%	sorry, Dave
Flat Top	Y	Y	Y	N	Y	Y
Windex included	N	N	N	N	N	N
Mac colored	100%	93%	71%	86%	92%	65%
Beer hazard ²	N	Y	N	Y	Y	Y
H"xW"xH'	200	283	365.2	211.2	273.4	423.5
Mass ³	8.2	9.3	10.1	9.8	8.8	11.1
Mass ⁴	1.4	1.5	1.7	1.6	1.5	1.8
Price	\$581	\$642	\$602.18	\$518	\$542.20	\$605
Throw Weight ⁵	16	22	21	24	No	maybe
Speed ⁶	62	88	whee!	66	a lot	43
Scan bits	27	36	8	24	30	um, over 18
Bits in Box	142	6 big ones	222	111	42	0

Our Table:

- Deviance from golden mean (1:4:9 proportions).
- Will it knock over a full bottle of beer while scanning?
- On Earth.

4. On the moon.

5. Not sure what that is, but it sounds cool.

6. How quickly you can slide the scanner's top back and forth before it breaks (in slides per minute, theoretical number only).

MacAddict Lab Fun

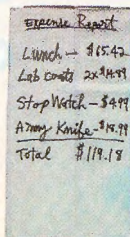
TRY THIS AT HOME

- Rub a balloon against the carpet, then stick it to a wall. No, it has nothing to do with computers, but it's cool, OK?
- Place a floppy disk in between the balloon and the wall. Make

sure it contains critical data which you haven't stored anywhere else.

IN THE FUTURE:

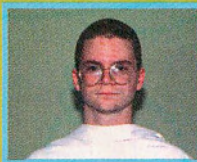
- Computers will be so fast that SimpleText will launch even before you want it.



WE SPARED NO EXPENSE
in setting up our lab.

INPUT

OUTPUT



PRODUCT RATINGS



Apple Color Whatever Scanner

Comments: Although the image quality was low, this little guy was just sooooo cute.



Epson Discretion

Comments: Even though flesh tones were off, we had loads and loads of fun playing with the packing materials.



LaCie Cubic Zirconium Scanner

Comments: Despite very poor reproduction, the company was nice enough to include these huge diamond rings.



Umax MeOut

Comments: There were a few problems with image fidelity, but it's got "Max" in the name.



Hewlett-Packard ScanPet

Comments: The scans came out not so great, but we have fond memories of our HP scientific calculators. Reverse Polish Notation forever!



Agfa NoAcronym Scanner

Comments: Blurry images, but they used to have James Garner as a spokesman.



Ropin' in

Got a problem with rogue extensions stampeding all over your System Folder? Can't make out the brand on a shared library and so you don't dare corral it outside your System Folder for fear of breaking something? Buck up, little pardner, and pull on those boots. It's time to ride herd on those extensions.

Identifying Breeds

Before you go mucking about in your System Folder, you need to know about the critters that live there. The System Folder contains the mind (and heart and soul) of your Mac; most of what's inside has special functions, and it's not always obvious what those functions are. Although we'll deal mostly with extensions, it's useful to know what the other files are and why they live in the System Folder. You can cause real frustration if you move something that your Mac or an application needs. So here's your field guide to System Folder denizens.

• Extensions

The Macintosh owes much of its flexibility to these little bits of code. Extensions work by extending the Mac OS (thus the name) to do new and exciting things. For example, the LaserWriter extension allows you to select a printer via the Chooser, and the Apple CD-ROM extension lets your Mac use CD-ROMs. At startup your Mac loads extensions (and any control panels with "init" code, or code that should load at startup) into the System's memory. This process means that your Mac gives up a bit of RAM with each loaded extension.

Illustration by Adam Vanderhoof

By David Reynolds

Extensions

You can find extensions in the Extensions folder, which lives in the System Folder.

• Control Panels

Cousins to extensions, control panels let your Mac do interesting things by allowing you to change your Mac's settings and otherwise control how the System and some extensions behave. Although some control panels contain init code (bits of the control panel are loaded at startup, just like extensions), some make alterations to your Mac's parameter RAM (which holds some of your Mac's settings, such as the currently selected printer) or to other files, and don't contain any init code at all (Startup Disk is an example of this kind of control panel). These non-init control panels can be kept anywhere, but for convenience's sake, they're typically kept in the Control Panels folder, which resides in the System Folder.

• Shared Libraries

These work something like actual lending libraries. Applications look here for some of the code they need and borrow it for a while instead of including all the code in the application. One such shared library is ObjectSupportLib, which is used by AppleScript and some other applications. Shared libraries keep applications small, and allow developers to provide updates without rewriting the whole application. Because shared libraries load only when needed, they don't hog System RAM. Shared libraries typically reside in the Extensions folder.

• Preferences

The Preferences folder is the wildest, woolliest place on a Mac's hard drive. Applications store all kinds of files here. Typically, these files contain settings for your applications, such as where a window will appear on the screen and an application's default font. The Preferences folder may also contain items such as Web browser cache files. Be careful when throwing out preferences; don't discover too late that Adobe Photoshop stores lots of things there (including your serial number).

• Background Applications

Found in the Startup Items folder, faceless background applications start running

when the System starts up. Background applications typically handle some of the functions that an extension would handle, but because they aren't loaded at startup, they don't interfere with the System in the same way that extensions do, and they don't take up System memory (although they carve a little piece of RAM of their very own out of the free memory space). The primary differences between these applications and regular applications are that they have no user interface and don't show up in the Applications menu. QuickMail uses a background application, QuickMailHub, to watch for new messages.

With System 7.5.5, Apple returned to the idea of a universal system; that is, any Mac needs only a System and a Finder to start up. Before version 7.5.5, the Mac OS relied on enabler files to let a System run on a given Mac. For example, the 040 Enabler file was required to run System 7.1 on a Centris 650, a 68040-based Mac. With just a System and a Finder running your Mac, though, you won't be able to do some of the things that make your Mac fun and practical, such as run QuickTime movies or do networking.

Regaining Control

Now that you know a little bit about the beasts spreading disorder in your System Folder, here's how you can take control.

1. Perform custom installations

Although Mac users have enjoyed easy software installation for years, the process keeps getting tougher and tougher as more applications require (and install) extensions, control panels, and shared libraries. Software installers, although they make installation easy, aren't very smart. Some install older versions of extensions or install bits of software without telling you what they installed where.

This is when choosing a custom installation over an easy installation can help. When you choose the easy installation option, the installer looks at your System and makes some decisions about what to install based on what's already there. But, as we said before, installers don't always make the decisions that you would make. By choosing a custom installation, you can

exercise some control over what gets dropped into your System. If you install a graphics package that requires QuickTime, and you already have the most recent version of QuickTime installed, you can do a custom installation and ask the installer to install everything but the QuickTime extension.

BEST EXTENSION NAME:

KarmaExtension (installed by Metrowerks CodeWarrior 9). We could all use a little extension on our karma account every now and then.

When doing a custom installation, it's important to know what's already in your System. Take the time to go through your Extensions and Control Panels folders and get to know their contents. That way, you can install only what you need through a custom install. One word of caution: Custom installations sometimes install more than you ask for, despite your best efforts. For example, when installing the Monitors & Sound control panel and the AppleVision extension, the System 7.5.3 installer also installs a version of the ObjectSupportLib (a shared library), even though you have at no time made a request for such an installation. The ObjectSupportLib is necessary for Monitors & Sound to work properly, so the installer looks to see if it's already there, and if it's not, the installer installs it.

EXTENSIONS ALREADY IN SYSTEM 7.5.5:

Drag and Drop, Thread Manager, and Apple Event Manager (incorporated in AppleScript).

2. Apply Labels

It's true—there *is* a practical use for Labels (found in the Finder menu). Before installing new software, go through your System Folder, Apple Menu Items, Control Panels, Extensions, Preferences, Startup Items, and Shutdown Items, select all the items in each folder, and apply the same label to them all. You can define a custom color and label name in the Labels control panel. Once everything in your System Folder shares the same label, anything put in there by an installer will appear without a label and will be instantly identifiable as something new.



FIND MUCH
OF THE
SHAREWARE
MENTIONED
on The Disc.

The Dirty World of Installations

To get an idea of what's installed where, we installed several items such as QuickTime and Speech Recognition in a nice, clean System Folder to see what happened. We also installed Microsoft Word and Excel through Microsoft Office to see what this package (known for its creation of new files) puts on the drive.

All installations (except the Word/Excel installation) were easy installs done on a Power Macintosh.

For an exhaustive list of control panels, extensions, and shared libraries, we highly recommend the shareware program The Informlnit by D. E. Frakes. This document tells you everything you'd ever

want to know about extensions, and then some. Look on The Disc, or go to <http://www.ambrosiasw.com/DEF/Informlnit.html> to learn more. You'll find listings for obscure, no-longer-used extensions, and you'll find out which ones you need and which ones are just wasting hard drive space.

QuickTime

The software layer that brings multimedia to the Mac.

What It Installs:

Apple Menu Items:

None

Control Panels:

QuickTime Settings—

Allows you to set autoplay for audio CDs, and select the music source that QuickTime uses when playing.

Extensions:

QuickTime—Lets your Mac take advantage of time-based media, such as video and music.

QuickTime Power Plug—Speeds QuickTime on Power Macs.

QuickTime Musical Instruments—Provides musical interfaces (licensed from Roland) for use by QuickTime.

Sound Manager 3.2.1—Provides better sound playback on your Mac. A slower version is included in System 7.5.3.

To play QuickTime movies you need:

- QuickTime

To play MIDI tracks using QuickTime you need:

- QuickTime
- QuickTime Musical Instruments

Note: QuickTime Power Plug is recommended for Power Macintosh users, as it speeds QuickTime functions.

Classic AppleTalk

The original Mac networking software, AppleTalk has now been relegated to Classic status.

What It Installs:

Apple Menu Items:

Chooser—An application that lets users choose network-related peripherals, such as printers and file servers.

Control Panels:

File Sharing Monitor—Shows you who is connected to your Mac and how much activity is taking place.

MacTCP—Teaches your Mac to speak TCP/IP, the language of the Internet.

Network—Allows you to choose the type of network to which to connect.

Sharing Setup—Lets you turn on and off file and application sharing.

Token Ring—Sets your Mac up to use a Token Ring network. Mostly found in corporations.

Users & Groups—Allows you to set who can connect to your Mac over a network.

Extensions:

Apple Built-In Ethernet—Enables your Mac to connect to an Ethernet network.

AppleShare—A Chooser extension that lets you select a file server.

Ethernet (Built-In)—Provides similar functions to Apple Built-In Ethernet. Either extension will work.

EtherTalk Phase 2—Allows your Mac to connect to an Ethernet network. Incorporated into System 7.5.3.

MacTCP Token Ring Extension—Lets you use MacTCP over a Token Ring network.

Networking Guide Additions—AppleGuide document that has information about networking on a Mac.

To use the Internet you need:

- MacTCP
- Network Extension

To connect to another computer over a LocalTalk network you need:

- Chooser
- AppleShare
- Network Extension

To share files on your Mac over a LocalTalk network you need:

- Chooser
- AppleShare
- Sharing Setup
- Users & Groups
- File Sharing Extension
- Network Extension

CD-ROM Software

This software package allows Macs to read CD-ROMs and audio CDs.

What It Installs:

Apple Menu Items:

AppleCD Audio Player alias—A control panel to play audio CDs on your Macintosh.

Control Panels: None

Extensions:

Apple CD-ROM—Lets your Mac recognize the CD-ROM drive.

Apple Photo Access—Lets your Mac use Kodak's PhotoCD format. Needs Foreign File Access to work.

Audio CD Access—Allows your Mac to recognize audio CDs.

Foreign File Access, High Sierra File Access, ISO 9660 File Access—Allow your Mac to use non-HFS CD-ROMs.

To use an audio CD you need:

- AppleCD Audio Player
- Apple CD-ROM
- Audio CD Access

To use a CD-ROM you need:

- Apple CD-ROM
- Foreign File Access
- High Sierra File Access
- ISO 9660 File Access

To use Kodak PhotoCDs you need:

- Apple CD-ROM
- Apple Photo Access
- Foreign File Access



Open Transport

This is the new networking software from Apple, and it's a monster, installationwise.

What It Installs:

Apple Menu Items:

Chooser

Control Panels:

AppleTalk—Lets the user change network ports and zones when using Open Transport.

File Sharing Monitor

Sharing Setup

TCP/IP

Users & Groups

Extensions:

AppleShare

ENET Compatibility—

Fixes a bug for PCI-based Power Mac users when using a Novell network.

Ethernet (Built-In)

EtherTalk Phase 2

File Sharing Extension

Network Extension

Open Transport's shared libraries (Open Tpt AppleTalk Library, Open Tpt ATalk 68K Library, Open Tpt, Inet 68K Library, Open Tpt Internet Library, Open Transport 68K Library, Open Transport Guide Additions, Open Transport Library, OpenTptAppleTalk Lib, OpenTptInternetLib, OpenTransportLib).

Serial (Built-in)—Lets Open Transport use the printer and modem ports.

Shared Library Manager, Shared Library Manager PPC—Allows loading and unloading of shared libraries. Necessary when using Open Transport.

Preferences:

ASLM Preferences, TCP/IP Preferences—Preferences for the Shared Library Manager and TCP/IP extensions.

To use the Internet you need:

- TCP/IP
- Network Extension
- Open Transport's shared libraries (except Open Transport Guide Additions)
- Serial (Built-in)
- Shared Library Manager
- Shared Library Manager PPC

To connect to another computer over a LocalTalk network you need:

- AppleTalk
- AppleShare

- Network Extension
- Open Transport's shared libraries (except Open Transport Guide Additions)
- Serial (Built-in)
- Shared Library Manager
- Shared Library Manager PPC

To share files on your Mac over a LocalTalk network you need:

- Chooser
- AppleTalk
- Sharing Setup
- Users & Groups
- Network Extension
- Open Transport's shared libraries (except Open Transport Guide Additions)
- Serial (Built-in)
- Shared Library Manager
- Shared Library Manager PPC

Microsoft Word and Excel

We chose these two applications as installed by Microsoft Office because of their prolific nature when it comes to the System Folder.

What It Installs:

Apple Menu Items: None

Control Panels:

Microsoft Office Manager—A control panel that allows you to install and uninstall parts of Microsoft Office.

ODBC Setup—Open Database Connectivity. Used to set some preferences when connecting to ODBC servers.

Extensions:

Apple Event Manager—Lets applications (including the Finder) communicate with each other.

Microsoft's shared libraries—Microsoft Dialog Library, Microsoft Find File Library, Microsoft Mail Library, Microsoft Tool Editor Library—Libraries used by Microsoft applications. Provide standard dialog boxes, find file functions (among Microsoft applications), and Microsoft Mail support.

Microsoft OLE Automation, Microsoft OLE Extension, Microsoft OLE Library

Standard OLE Types (Power Mac), Type Libraries folder—Extensions and libraries that allow Microsoft's Object Linking and Embedding (similar to Publish and Subscribe) work.

MText font—A PostScript font used by Microsoft applications.

ObjectSupportLib—Lets applications send and receive Apple Events.

ODBC Configuration Manager, ODBC Driver Manager, ODBC SQL Server ADSP NetLib, ODBC SQL Server Driver, ODBC SQL Server Setup, ODBC SQL Server TCP/IP Netlib, Q+E ODBC FoxPro Driver—These allow access to ODBC databases.

vba en olb (PowerMac)—Anybody?

Visual Basic for Applications—Necessary for Excel to run.

Fonts:

Arial, Arial Narrow, Arial Rounded Bold, Bauhaus 93, Book Antiqua, Bookman Old Style, Bookman Oldstyle Bold, Braggadocio, Britannic Bold, Brush Script, Century Gothic, Century Schoolbook, Colonna, Courier New, Desdemona, Footlight Light, Impact, Kino,

Matura Script Capitals, Mistral, Monotype Corsiva, Monotype Sorts, MS LineDraw, MT Extra, Playbill, Stencil, Times New Roman, Vivaldi, Wide Latin, and Windings.

Preferences:

Embedding Preferences, Excel Settings (5), Excel Startup folder (5), Excel Chart AutoFormats (5), Expansion Manager Prefs, Microsoft Graph Settings (5), ODBC Preferences, Office Manager Preferences, PPC Registration Database, Q+E ODBC FoxPro Driver License, Registration Database, Word Font Substitutes, Word Settings (6), and Word Startup Folder (6)—These preferences record all the information about

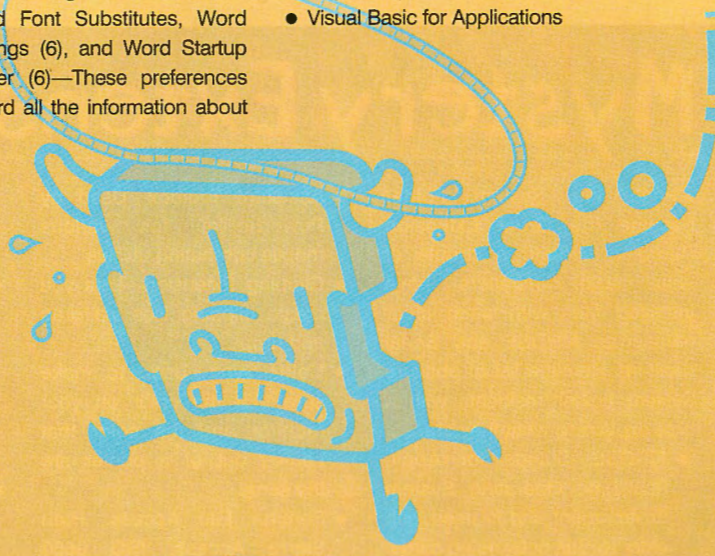
how Microsoft applications should appear and behave. Be careful about throwing these items away, as some are necessary for the applications to run.

To use Word as a basic word processor you need:

- Microsoft Dialog Library
- Microsoft OLE Library

To use Excel as a basic spreadsheet you need:

- Microsoft Dialog Library
- Microsoft OLE Automation
- Microsoft OLE Library
- Object Support Library
- Visual Basic for Applications



SCARIEST EXTENSION:

KeyCrasher (installed by **Now Startup Manager**). This elegant extension crashes your Mac when it starts up, so you can practice using **Now Startup Manager**. Fool your friends!

3. Use a little toner

If you want a more permanent record of your System Folder, open your System Folder, view the contents by name, and expand every folder inside the System Folder by clicking on the triangle to the left of that folder. Then, go to the File menu in the Finder menu and choose Print Window. Your printer (assuming you have one) will dutifully spit out a printout of everything that lives there. You can use this list to check against your System Folder a few months down the road to see what cropped up while you weren't looking.

TOP OBSCURE, PRACTICAL EXTENSIONS:

QuickTime Power Plug, which speeds QuickTime operations on a Power Macintosh, and WorldScript Power Adapter, which will speed some text operations on a Power Macintosh.

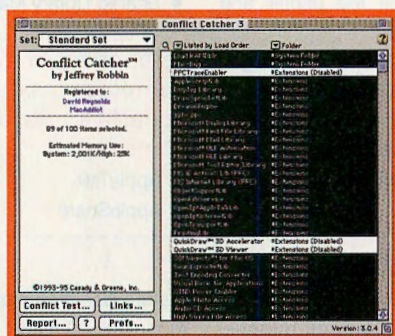
4. Use an extension manager

One of the most flexible, convenient ways to deal with extensions is to use an extension manager. These lovely utilities (which usually work as a control panel/extension duo) disable and enable extensions with just a few clicks. Three extension managers are worth considering: Extension Manager (which comes with System 7.5), Conflict Catcher (a commercial product from Casady & Greene: 800-359-4920, <http://www.casady.com/C&G/Welcome.html>), and Now Startup Manager (a commercial product from Now Software: 800-730-7854, <http://www.nowutilities.com>). All three managers allow

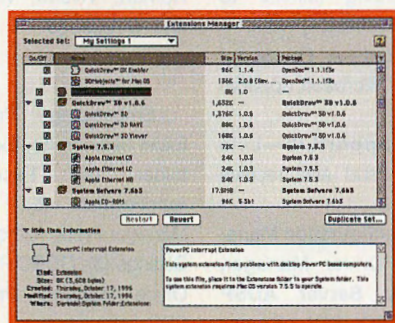
you to save sets of extensions (invaluable in tight RAM conditions), and they allow you to interrupt the startup process to select a new



NOW STARTUP manager helps with Extensions, Control Panels, Fonts, and Startup Items.



CONFLICT CATCHER will give you info about how much RAM your extensions use.




APPLE'S NEW Extensions Manager can group System Folder items by package.

set of extensions, or turn individual extensions on and off. Both Conflict Catcher and Startup Manager go beyond extensions and control loading software such as System Folder items, Startup Items, and Fonts.

System 7.6 promises to include an improved Extensions Manager that will group extensions by package (typically, these are grouped by the program that installed the extensions, or by extensions that depend on each other), a boon to those of us who want to turn on and off all those Microsoft Word 6.0 extensions without missing any.

5. Get out of trouble

All this said, the day will come when you try to launch an application and it tells you that it can't be launched because something is missing. Perhaps you removed a shared library without realizing it, or perhaps you disabled a seemingly useless extension that the application needs. Before you reinstall the application, try using your Find File function to find the missing extension. Note the name of the offender in the dialog box that pops up when you launch the application. Type it into the Find File dialog box and see if the file shows up. If it does, drag the file back onto your System Folder (or turn it back on if you're using an extension manager). If the missing item was an extension, you'll need to restart. If it was a shared library (which usually has "lib" or "library" somewhere in its name), you can probably launch the application without restarting. Doesn't hurt to try. If you can't find the item on your hard drive, look on the installation disk. If you find it there, try dragging it onto your System Folder and then restarting. If you can't locate the extension, you may have to reinstall the application to get things right again. 

Since roping this beastly feature, David "Wrangler" Reynolds now sports a set of glamour Mac spurs.

Mystery Extensions Revealed

Since the System Folder became the Great Extension Dumping Ground a couple of years ago, installers have installed files with such clear names as A/ROSE and Serial (Built-in). Here's a list of obscure System Folder residents with a note explaining what they are.

- **A/ROSE**—Stands for Apple Real-Time Operating System Environment and is used with older NuBus networking cards.

- **Assistant Toolbox**—Used by PowerBooks for various mobile computing utilities.
- **Clipping Extension**—Lets you create clipping files via drag and drop.
- **Color Sync**—Used to make sure that the color on your monitor and the color that comes out of a printer are the same.
- **Foreign File Access, High Sierra Access, ISO 9660**

Access—This trio of files allows your Mac to access non-Mac HFS CD-ROM discs.

- **ObjectSupportLib**—This is the Object Support Library that lets applications send and receive Apple Events that conform to the Object Model. Also used by AppleScript on Power Macintoshes.
- **ODBC Setup**—Microsoft Office installs this control panel to use with SQL Database

servers. It stands for Open Database Connectivity.

- **QuickTime Power Plug**—Improves QuickTime performance on Power Macintosh systems.
- **Record Button**—Used with the Apple Adjustable Keyboard to enable its record button.
- **Serial (Built-in)**—Lets the serial port be used by Open Transport and communication applications.

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Radius PrecisionColor 19

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SuperMac Futura MX

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RasterOps PaintBoard Lightning

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SuperMac Spectrum 8

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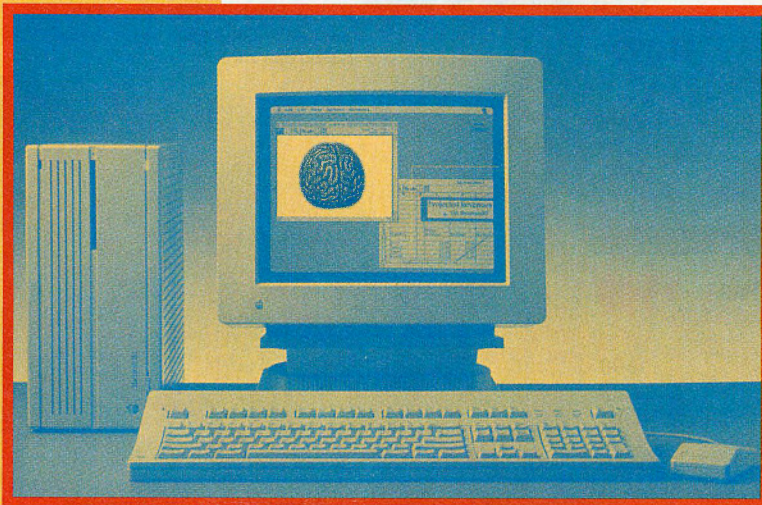


old mac

This Old Mac: Iici, Ilcx, and Ilsi

By T. Kelley Boylan

With this month's installment, we move from the antediluvian era of the 32-bit dirty processor into the shining world of the full 68030. We'll tell you everything you need to know about using a Macintosh Iici as well as highlight its kinfolk, the Macintosh Ilcx and Ilsi.



These Macs continued the legacy left by the Mac II: They could be easily opened and upgraded. Each of these Macs offered a smaller case than the Mac II, and each one was planned to suit a different type of person. The Mac Iici was for the power monger, the Ilcx for the bargain hunter, and the Ilsi for those in between.

What You Have To Work With



Up to 128MB of RAM. The Mac Iici shipped with just 1MB of RAM, but you can install much more.

Three NuBus slots, plus a cache slot. There's plenty of room for add-on accelerator, video, and data acquisition cards. **A 68030 processor** with 68881 floating-point unit (FPU).

The Iici's processor runs at 25MHz, making it the fastest of the three machines.

A video and bus combination that's relatively modern and thus helps overall speed.



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What To Do About Hardware



CPU: Although a Mac with a 25MHz 68030 won't run rings around a Power-

PC-based Mac, it is sufficient for Web browsing, word processing, and basic business applications. A few applications have gone entirely to the '040 and PowerPC machines, but they're high end and would be too slow on an '030 anyway. Which ones? Mostly games, a few Adobe Photoshop filters, and rendering software.

If you want to accelerate your Mac IIci all the way to a PowerPC processor with add-on boards, you can. Why bother? Well, you might have expensive or custom NuBus boards. Or you might find a used accelerator cheap, say, for two or three hundred dollars. Other than that, you're better off saving to buy a new Power Mac.

Memory: Every Mac seems to have its own memory scheme, something we hope Gil Amelio will ameliorate with his plans to simplify the Mac product line. The IIci's oddity is that it uses the Mac's main memory (dynamic RAM, or DRAM) to drive the display. Most Macs have a specific slot for video RAM (VRAM) or have it soldered to the motherboard, but not the IIci.

As usual, RAM is divided into two banks, A and B. (As you face the front of the Mac IIci, the four SIMM slots on the right comprise bank A.) The RAM in bank A is also used for video RAM, and that's why your memory doesn't all show up in About This Macintosh under the Apple menu; up to 320K is borrowed for the display. Always install RAM in groups of four; for example, four 1MB SIMMs with four 16MB SIMMs—don't mix and match or the machine won't boot.

Storage: Install as large a hard drive as you need. A IIci will work with any SCSI device—Jaz, CD, Zip, Syjet, or DAT drive, for example. Although the Mac IIci has room inside for a storage device, you'll need to install your removable storage device, say a CD-ROM drive, externally, because the IIci doesn't provide front-panel access to a device that has been installed internally. Because the IIci is 32-bit clean, you can run the latest System software, System 7.6, which allows the Mac IIci to see a full two terabytes of disk space.

Display: The IIci has built-in video. Need bigger than a 14-inch monitor? Install a better video card in one of the IIci's NuBus expansion slots, but don't go overboard. A large-screen, 24-bit NuBus card will likely cost hundreds of dollars, and that's more than the \$250 a IIci is worth.

Some PC monitors will work on a IIci. If you have a PC monitor that's truly multisync, all you need is a Mac-to-VGA (Video Graphics Array) adapter. They're available at most computer stores. Sony (800-352-7669, <<http://www.sony.com>>) makes a fine one called the Sony MacView. It lets you set your display to different resolutions (assuming that both your display and card support them). Don't like Sony's? Try one from Griffin Technologies (800-986-6578, <<http://www.griftech.com>>); ask for part number MN 982.

Acceleration: With three NuBus slots and a relatively modern architecture, you can bump a Mac IIci to the level of a PowerPC processor. You won't see all the speed advantages that a PowerPC processor affords, however, on account of motherboard limitations. If you can find a cheap upgrade card—three

or four hundred dollars—it's not a bad move. Also, consider the '040 upgrades and gadgets that speed existing plain-jane '030s. Check both used-hardware vendors and accelerator makers for models, features, and prices. There's no shortage of options.

Most accelerators are fully compatible with today's software, but not all. Ask. Be sure the accelerator you want will work with your setup. For example, DayStar Digital's Turbo 40/40 doesn't support System software later than version 7.5.1. Other accelerators lack a paged memory management unit (PMMU), and that means no virtual memory or RAM doubling. Again, remember to ask questions when you're shopping.

A cache card does wonders to speed a Mac IIci, and it is relatively inexpensive, less than \$50. The cache, which is a collection of fast RAM, stores the processor's most-recently used instructions. Statistically speaking, recent instructions are the most likely to be called again. If these are stored in fast RAM, the Mac can grab and execute them much faster than if it had to go to the much slower main RAM to get them again.

Sound: The Mac IIci does not include any sound-in capability, although the Mac IIsi does (see "The Mac IIci Brethren: The IICx and IIsi," p56, for more information). The IIci does include 8-bit, stereo-out sound, so although you can't record in stereo on a Mac IIci, you can play stereo CDs.

Networking: Anything goes, from AppleTalk (no card necessary) to Ethernet or Token Ring add-on cards. The serial port's speed is more than fast enough for a high-speed modem, even an ISDN line. Buy what you need and plug it in.

Cool Fact:

The Mac IIci was one of Apple's longest-lived Macs, rolling off the line for nearly four years. On Apple's scale, that's geologic time.

old mac

Hardware Sources

Accelerators

DayStar Digital
770-967-2077
<http://www.daystar.com>

MicroMac Technology
800-600-6227
<http://www.micromac.com>

MacGalaxy
608-238-0606
<http://www.macgalaxy.com/pages/store/store.html>

Sonnet Technologies
800-786-6260
<http://www.sonnettech.com>

Ask about Dove, NewLife, and Novy Systems when you call used-hardware vendors (see page 56 for contact information). They no longer make the boards you want—or are out of business—but their products are still around.

Video

Griffin Technologies
800-986-6578
<http://www.griftech.com>

RasterOps
800-729-2656
<http://www.rasterops.com>

Sony
800-352-7669
<http://www.sony.com>

Networking

Farallon Communications
800-759-7761
<http://www.farallon.com>

More Sources for Old Macs...

- Use your favorite search engine to search for "used mac"
- Subscribe to the newsgroup <comp.sys.mac.forsale>
- Look in local newsgroups; for example, <yourcity.forsale>
- Peruse the phone book under "Computers, Used"
- Watch the newspaper's "for sale" section

- Ask around. You may be surprised by how many people have old computers stashed in the closet that they'll just give away.

Hot Tip:

Apple keeps up with its own old hardware. For specs on every Mac ever made (but not being made anymore), go to <http://product.info.apple.com/productinfo/specsheets>.

Used-hardware Sources

Contact several vendors when you shop, and ask about warranties and return policies, just in case. This list isn't comprehensive, but it's a good place to start.

The Computer Exchange
800-304-4639
<http://www.compexch.com>

CRA Systems
800-375-9000
<http://www.cra-sys.com>

DataTech Remarketing
800-281-3661
<http://www.datatech-rmkt.com>

GE Capital
800-431-7716
<http://www.ge.com/capital/commequip/es>

Hawke Business Systems
800-875-2610

Mac•Res•Q
510-689-9488
<http://www.macresq.com>

Mac Sale International
800-729-7031
<http://gn2.getnet.com/macsale/index.html>

Pre-Owned Electronics
800-274-5343

Sun Remarketing
800-821-3221
<http://www.sunrem.com>

What To Do About Software

**System software:**

You can use any version but 7.5.2. As usual, go with the latest, greatest version for simplicity's sake. As of this writing, System 7.6 is available and stable.

Application software: It's an open book. Almost anything that isn't PowerPC-only will run. Even Photoshop is functional, if horribly, horribly slow. Microsoft Word and Excel work fine but definitely are not fast, so smaller packages are a good idea. We suggest Nisus Writer (Nisus, 800-281-0101, <http://www.nisus-soft.com>) or ClarisWorks for word processing, and Claris Draw for art (Claris, 800-325-2747,

<http://www.claris.com>). Any of the newer utility packages, such as Norton Utilities 3.2 from Symantec (800-4417234, <http://www.symantec.com>) and Retrospect from Dantz Development (510-253-3000, <http://www.dantz.com>) will work for maintenance and backups. Don't try to make any II-series machine into a rendering tool, however. Humans just don't live that long.

Games: Older, slower games such as Semicolon Software's Solitaire 'til Dawn run but may be a little dull if you want the high-speed twitch action of a shoot-'em-up. Fortunately, there's Brøderbund's Myst and Prince of Persia; Psygnosis' Lemmings; Casady & Greene's Crystal Quest,

plus 8-Ball Deluxe Pinball and its companion, Crystal Caliban; Blizzard Entertainment's Warcraft; Origin's SuperWing Commander; Ambrosia Software's Maelstrom, Apeiron, and Bubble Trouble; Velocity's Spectre 1.0; Graphic Simulations' Hellcats Over the Pacific; plus early versions of Sierra On-Line's Leisure Suit Larry, Delta Tao's Dark Castle, and Maxis' Sim City. There are more than we can name here.

For a comprehensive list of older games and places to find them, check out <http://www.astro.nyu.edu/lentz/mac/recreation/classic-mac-games.html> and http://www.tikkabik.com/mac_arcade.html.

The Mac Ilci Brethren: The Ilcx and Ilsi

The Ilcx and Ilsi are nearly identical to the Ilci. Nearly. For example, the Mac Ilcx is not 32-bit clean, so to use more than 8MB of RAM, you'll need either the Apple 32-bit Enabler or Connectix's Mode32. The 32-bit Enabler is at http://mirror.apple.com/mirrors/Apple_SW_Updates/US/Macintosh/System/Other_System/32-Bit_System_Enabler_1.0.3.sea.hqx.

Mode32 is at <http://sumex-aim.stanford.edu/info-mac/cfg/mode32-75.hqx>. The Mac Ilsi, although 32-bit clean, supports far less RAM than the Mac Ilci, and it has fewer expansion slots. Here's the rest of what you need to know about these two Macs:

The Functional Ilcx: With a 68030 processor running at only 16MHz, a Ilcx is considerably slower than a Ilci. Also contributing to this slower speed is the fact that the Ilcx does not have a slot for a Level 2 cache. As with the Ilci, however, you may be able to find an accelerator board (you cannot accelerate the Ilcx with a clock oscillator, however). Also, unlike the Ilci, the Mac Ilcx requires a video card to drive the display; it does not use main

memory, nor does it include VRAM.

Otherwise, the Mac Ilcx was designed much like the Mac Ilci. It includes three NuBus slots for adding expansion boards such as accelerators, Ethernet, or video cards. There are two banks for adding memory, and the rules of installation are identical to those for the Ilci. Like the Mac Ilci, the Mac Ilcx uses main memory, or DRAM, for its video RAM.

The Speedy Ilsi: The Mac Ilsi is really just a pared-down version of the Mac Ilci, albeit with a couple of extra goodies. It's smaller physically and thus has room inside for only one expansion card—either a NuBus card via an adapter or a processor direct slot (PDS) card. Installing one card covers the other slot, so one slot is all you get. (Because the Ilsi uses main memory, or DRAM, to drive the video display, you aren't forced to fill your single slot with a video card). You'll find more NuBus cards than PDS cards. The Ilsi holds less total RAM—65MB—and includes only four SIMM slots, which all must be filled with SIMMs of the same size and speed. This is hardly a major limitation on a machine of this vintage, however.

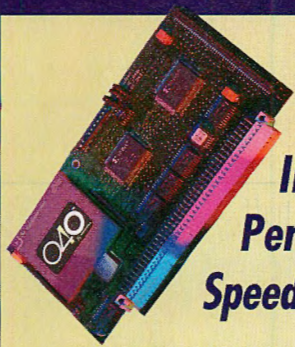
Additionally, the math coprocessor (or FPU) is optional.

To keep from cannibalizing Ilci sales, Apple trimmed the Ilsi's clock speed to 20MHz and excluded a Level 2 cache slot. A Ilci runs at 25MHz and uses the same motherboard. Several companies then built simple, clip-on clock accelerators that range from \$15 to \$200. Anyone comfortable opening the case of a Mac Ilsi can accelerate it. Output Enablers (at <http://www.io.com/~oe/Products.html>; it doesn't have a phone number) even offers a \$15 clock oscillator that can run a Ilsi at up to 27.5MHz—faster than a Ilci.

And the extra tidbits? The Mac Ilsi maintains a place in history for two reasons. It was the first Mac to have memory soldered onto the logic board—a whopping 1MB. Also, it was the first Mac to include built-in circuitry for recording sound (it supports 8-bit, mono sound in and shipped with a microphone). Not even the Ilci and Ilcx offered these features. ☐

T. Kelley Boylan has co-authored several books and articles and is a Mac administrator when he's not writing. He owns and uses Macs exclusively.

Run Your Mac Faster and Save!



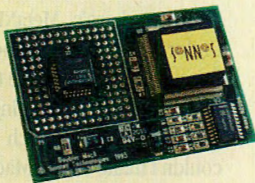
Accelerate Mac LC, LC II, Color Classic, IIfx, IIsi, IIfx, or Performa 600 to '040 Speed Starting at \$199

Sonnet Presto™ LC 040 50/25 MHz accelerators increase Mac LC, LC II or Color Classic performance 470% as fast as a stock machine (processor performance, MacBench2). Use RAMDoubler or Virtual Memory to break the 10MB barrier with the Presto LC (except Mac LC, OS 7.1+ req'd). The Presto LC is only \$199, or with hardware Floating Point Unit (FPU) \$249.

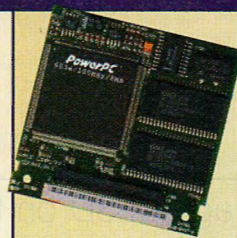
The 80/40MHz version for the Mac IIsi*, IIfx, IIfx, or Performa 600 increases processor performance by 250-500%. The 80/40 MHz Presto is only \$299, or with FPU and 128K level 2 cache, \$399.

All Prestos are 100% application software compatible and run through System 7.5.5*. The Prestos are easy to install in the Macs' processor direct slot, and come with clear installation instructions. (*Some configurations are not compatible with RAMDoubler or Virtual Memory. Adapter req'd IIsi)

Allegro's Fast 68030s Give New Life to Mac SE, II, IIfx, LC, LC II, Color Classic from \$99



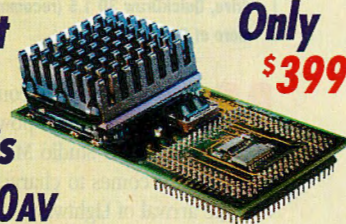
Give your older Mac more muscle. Sonnet Allegros™ are packed with features at bargain prices. The 33MHz Allegro LC for the Mac LC, LC II, Color Classic doubles your cpu speed, adds 16K level 2 cache and includes an FPU—all for only \$149. The 33MHz Allegro SE increases performance 460%, includes an FPU and 4 SIMM slots to expand memory up to 16MB for a bargain \$199. Allegro Mac II, IIfx models double '030 speed to 33MHz for a mere \$99.



Upgrade Your PowerBook 520/540 to 100MHz 603e with 8MB Memory for \$399*

This is the genuine Apple Computer upgrade designed to bring your trusted PowerBook 520/540 into the PowerPC generation with a speedy 100MHz 603e PowerPC processor. With this upgrade you can run all native PowerPC applications. Upgrade your reliable ethernet-equipped PowerBook to PowerPC, and prepare for the MacOS future. The upgrade includes 8MB of memory and is compatible with your existing RAM expansion board. *Price after a \$100 discount for trade-in of existing 68LC040 card.

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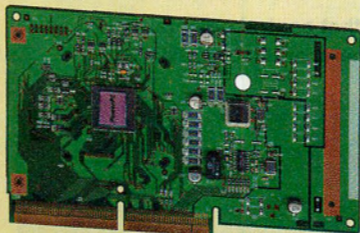


This is the genuine Apple Computer upgrade designed to bring your trusted PowerBook 520/540 into the PowerPC generation with a speedy 100MHz 603e PowerPC processor. With this upgrade you can run all native PowerPC applications. Upgrade your reliable ethernet-equipped PowerBook to PowerPC, and prepare for the MacOS future. The upgrade includes 8MB of memory and is compatible with your existing RAM expansion board. *Price after a \$100 discount for trade-in of existing 68LC040 card.



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Give your Quadra, Centris, or PowerBook 520/540 a math coprocessor for rendering, Photoshop, CAD, or other Math intensive applications. 25MHz 68040 \$125*, 33MHz 68040 with heat sink \$169*. Add a full 66/33MHz 68040 with FPU to your PowerBook 520 or 540 for \$199*. This upgrade also speeds 520 to 66/33MHz 540 performance. Call for PB190, Duo280 or 68882 FPU. *68LC040 trade-in required.



150-200MHz PowerPC 604 for 7500-9600 from \$399*

Give your Power Mac 7500, 7600, 8500, 8600, 9500, 9600 the PowerPC 604 upgrade it was designed for. This power-packed upgrade is 100% compatible with your existing software and hardware—including cache card. Just plug it in and enjoy the productivity you deserve. *with card trade-in.

Wow! 100BaseTx PCI Ethernet....Only \$99

IMS Twin Turbo

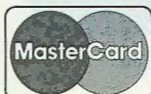


Accelerate graphics 270% in a PCI Power Mac with the fastest video accelerator—the same as Apple bundles with the 9600. Scroll faster. Increase the speed, color depth and resolution on your big monitor. With 4/8MB VRAM.....\$399/\$699

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256K 5260/5400/6360/6400....\$99
512K 5400/6360/6400\$149



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reviews

The dawn of the third age of 3D on the Mac, and other nifty stuff.

Lightwave 3D 5.0

COMPANY: NewTek

CONTACT: 913-228-8000, <http://www.newtek.com>

PRICE: \$1,499 (SRP)

REQUIREMENTS: Power Mac, 16MB of RAM, System 7.5 or later, CD-ROM drive, QuickDraw 3D 1.5 (recommended: 200MHz 604e-based Mac, 64MB or more of RAM)

Mac 3D software has competed desperately in the professional arena against high-powered Windows NT programs such as Kinetix's 3D Studio MAX and Microsoft's Softimage 3D, especially when it comes to character animation. That's all changed now with the arrival of Lightwave 3D.

You've seen Lightwave animation on TV shows, movies, and commercials—*Babylon 5*, *Courage Under Fire*, the little M&M guys—so you know it's powerful. But tapping that power requires a real mental stretch for any good Mac addict. The Lightwave interface, ported from the NT and Amiga versions, is as unMaclike as possible. It's completely modal: Everything's in one window, and there's no drag and drop, floaters, or other Mac niceties. Compared with the clean, easy-to-understand interface of Specular's Infini-D, Lightwave's interface is from the Dark Ages.

Hidden behind all those arcane buttons is an amazing wealth of power and flexibility. Lightwave gives you control over just about everything, so you can do just about

anything, and quickly, once you know your way around the interface.

Lightwave has two main modules: Layout, in which you position, animate, and deform objects, and Modeler, in which you create the objects themselves. The latter is maybe the most capable polygonal modeler for the Mac. It creates polygons in any shape, with any number of points. It also creates one-point polygons, which render in Layout as particles. Two-point polygons render as lines—great for hair or violin strings.

Easy-to-manipulate curves can serve as modeling guides. You can extrude along a curve, or extrude and scale according to the difference between two curves. If three or four curves are joined at their end points, Modeler can create a patch between them. Modeler also has extensive control over individual polygons and how they act.

Then there's MetaNURBS, which substitutes a NURBS (Non-Uniform Rational B-spline) patch for each square polygon in a mesh. Because you manipulate the NURBS in the same way as a polygon, it's easy to create branching objects, smooth surfaces, and complex seamless objects, such as a human being, that you previously couldn't make on the Mac. Once finished, you must convert the object to polygons before taking it to Layout.

The Layout module is even less Maclike than Modeler. Little interface details were hastily overlooked, such as an Undo or Revert function. You can't do a Save, only a Save As, which means you have to write over your old file every time you save.

In Layout, you tweak motion through the Motion Graph, which displays keyframe data graphically. The x , y , and z coordinates of position, rotation, and scale have their own separate channels, with

Plug-in Power

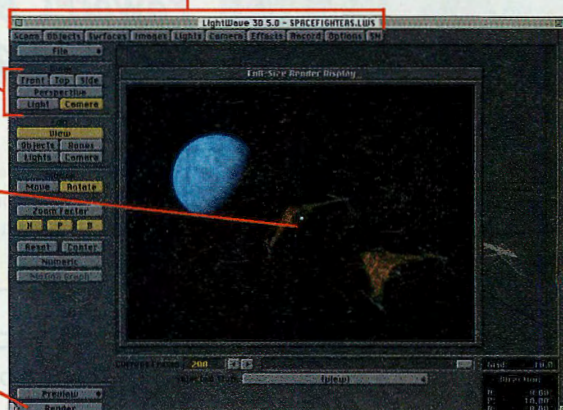
Like many other programs, Lightwave 5.0 accepts plug-ins. Unlike other programs, Lightwave 5.0 needs plug-ins to do basic things such as save image files without crashing. More than 100 plug-ins are included, some of which add important new features. (The PICT image output plug-in is conspicuously missing, but it will be included in an update.) I strongly recommend that you install all the plug-ins immediately, using the config file on the CD (bet you thought you'd never have to mess with one of those)—they won't install correctly without it. Check the NewTek Web site for exact config file installation instructions. Some snazzy third-party plug-ins should be available for the Mac by the time you read this. Dynamic Realities (at <www.dynamic-realities.com>) promises particle animation and physics simulation plug-ins. Prem Subrahmanyam (at <prems@star.noblestar.net>) is porting his "surface effectors" plug-in, which allows a null object to affect the texture of a normal object. Expect other cool plug-ins as the Lightwave for Mac market expands.

These buttons control what type of object, how you're moving it, and the object view.

Rendered images—check out the motion blur on those stars—appear in a totally modal panel (that's NewTekspeak for dialog box), which, like all Lightwave panels, can't be moved around or resized.

Assemble and render animations in Layout. There's plenty of power here, it just takes some getting used to. Earth to NewTek: Add an undo button!

Tabs lead to panels that control objects, surfaces, lights, camera, and more.resized.



GOING HOME: You can render within the Layout window.



FREAKIN' AWESOME



SPIFFY



YEA, WHATEVER



BLECH!

an additional channel for velocity. This gives you complete control over where an object is at all times. You adjust the motion path through the spline controls Tension, Bias, and Continuity. To animate variables other than object motion, such as light intensity, camera zoom, shadow fuzziness, and image saturation, Lightwave provides graphs called Envelopes that work a lot like motion graphs.

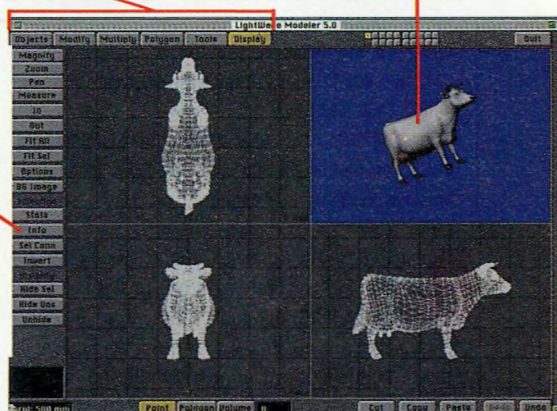
Tools to warp and change your model abound. Displacement mapping—not available in any other Mac program—deforms a surface according to a map's grayscale values. A bones skeleton deforms your model. Bones are armatures of small objects you build under the "skin" of your object. Move the bones to smoothly deform the surface, more or less the way real bones deform skin. The Muscle Bulging feature simulates muscles under the skin.

Lightwave also includes well-designed inverse kinematics (IK) tools that allow you to position an object chain based on the position of the last object in the chain instead of the first. (So, for example, you can move a character's hand and have the arm and shoulder follow.) Lightwave's IK tools work somewhat differently from traditional implementations: Instead of positioning the chain itself, you position a series of "goal objects" that affect the chain. In many ways, this is a superior form of IK, because an entire chain is controlled by the movement of a few easy-to-track

These tabs change the toolsets (those stacks of horizontal buttons on the left). Toolsets are organized according by function—one is for creating polygons, one for booleans and other tools, and so on.

You can make things in Lightwave's Modeler that you can only think about making in other programs, such as this cow, shown in Lightwave's standard top, side, front, and rendered views.

Buttons for setting display parameters. These change according to what tab is selected at the top.

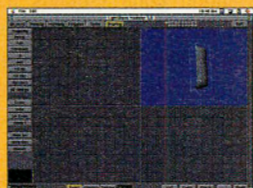


Numeric information about your grid and mouse position.

Click here to select polygons or points by various methods.

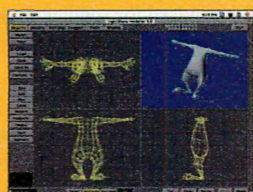
Dennis Reborn

No more little bits and pieces for Dennis—he's getting a Lightwave makeover as a seamless model with an internal skeleton. Here's how I did it.



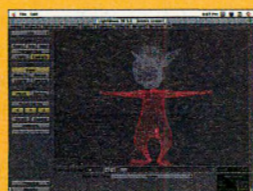
Lightwave's organic MetaNURBS tool lets you quickly create flowing curves out of simple shapes, such as a cube. Here I applied MetaNURBS to a subdivided cube, which

will become one side of Dennis' body. (I'll mirror it later to make the other side.) The outline is the MetaNURBS cage; with it you control the surface.



I used the Bevel tool to create the limbs on half the body, then mirrored that half and merged the points along the edge to make a full body. Then I turned the MetaNURBS object back

into polygons in preparation for taking it to Layout.



I added the head, neck, and eyes (all separate, linked objects) in Layout. The bone structure (the linked triangular shapes underneath Dennis' "skin") allow him to be positioned and deformed.



In the final render, with textures applied, notice the soft shadow-mapped shadows and the particle hair on top of Dennis' head.

NEXT GENERATION AND ANCIENT HISTORY: Lightwave offers state-of-the-art 3D modeling in a stiff, old-fashioned interface you'll probably hate at first.

goal objects. Make a wine glass the goal object for a character's hand, and wherever you move the glass, the hand will continue to hold it and the arm will rotate to compensate.

Lightwave allows an infinite number of layered image maps and procedural textures, and you can apply them to different channels, such as bump, diffusion, transparency, and so on. Unfortunately, texture position is numerical.

The renderer is primarily a fast phong renderer, although it isn't as fast as Electric Image Animation System (EIAS). Unlike EIAS, however, Lightwave can add raytraced elements, such as refraction and reflection. Transparency and shadows can be rendered without raytracing, speeding things considerably. Well-designed special effects include lens flares, fog, depth of field, motion blur, and glow.

As with any other first release, Lightwave has its problems. (The 5.0 in the name merely aligns this release with the versions on other platforms.) The import/export features don't work, nor does net rendering. Redraw is slow. Lightwave supports QuickDraw 3D, but it's not clear whether the program will support 3DME. The documentation is mediocre, telling you how features work but giving you few examples of how they work together. However, the many Lightwave books, videos, and magazines available make up for that fault.

I've only scratched the surface of Lightwave 3D's powers. To find out what it can really do, you'll have to shell out \$1,499. That may sound steep, but if you hunger for the power of a really professional 3D program, Lightwave is a bargain—in fact, it's a necessity. —Raf Anzovin

GOOD NEWS: Takes Mac 3D creation to the next level. Includes organic NURBS modeler, booleans, bones, IK tools, soft shadows, lens flares, infinite image-map layering, displacement mapping, and superb animation tools. Fast renderer.

BAD NEWS: Barely a Mac program. Extremely modal. No undo in Layout module. Some features not implemented.





reviews

VivoActive Producer 1.5

COMPANY: Vivo Software

CONTACT: 800-VIVO-411, <http://www.vivo.com>

PRICE: \$995 (SRP)

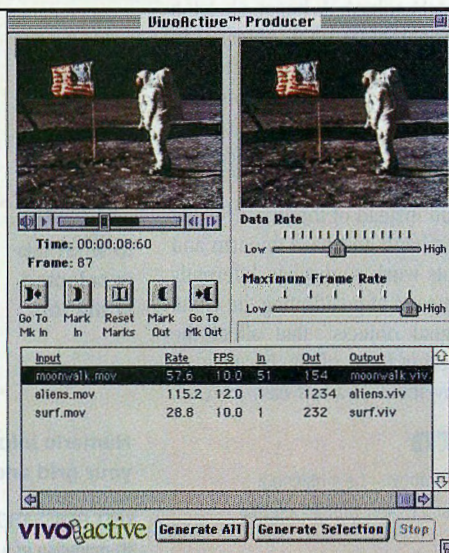
REQUIREMENTS: Power Mac, 16MB of RAM, 1MB of hard disk space, System 7.5 with QuickTime 2.5 or later, Netscape Navigator 2.01 or later

Distribution of broadcast-quality video over the Web is still several years off. In the last year, however, a few products using advanced compression techniques that get around the Internet's inherent bandwidth limitations have hit the market. As a result, viewable videos (running at 10 to 15 frames per second) are possible. One such application is VivoActive Producer 1.5 from Vivo Software. This package was designed for the production and distribution of low-bandwidth, on-demand video/audio using standard HTML pages and virtually any HTTP-compliant server.

Creating videos (which are viewable only by the VivoActive Player) is a relatively straightforward process: Just open QuickTime files with the Open Movies command in the File menu and click Generate Selection in the work panel. You can convert more than one movie at a time by dropping files onto the input list or by highlighting desired files and hitting Generate All. You can compress portions of videos by designating the first and last frames to be converted using the Mark-In and Mark-Out buttons.

VivoActive Producer provides helpful features for working with the anticipated data and frame rates of downloadable videos depending on the speed of users' connections. The Data Rate slider on the right side of the work panel controls the video's speed. Vivo recommends that you set the data rate slightly lower than the actual user connections. For example, set it at 21.6Kbps for people with 28.8Kbps modems and at 50.4Kbps for people with 56Kbps ISDN. The Maximum Frame Rate slider directly below the Data Rate slider controls the compression and specifies how many frames of the original video to skip when producing the compressed video.

Interactions between the Data Rate and Maximum Frame Rate affect the speed and quality of video delivered over the Web. Setting videos at a lower data rate (moving the slider to the left) produces videos with less image information per frame and allows videos to download more quickly and play with fewer interruptions. Note, however, that you'll sacrifice some clarity. Producer also provides settings templates in the



A STRAIGHTFORWARD INTERFACE helps you produce streaming Web video. Be sure to preview the movie, because the interaction of the Data Rate and Maximum Frame Rate sliders can be complex.

application's preferences that let you define groups of settings for all future videos. You also can define settings for one video at a time using the Preferences file.

Videos compressed into the VivoActive format are output with the suffix .viv or .vivo. During compression, Producer allows files to be placed automatically in any folder, which is handy if a dedicated connection is in place. For users working on remote dial-up lines, files can be quickly uploaded via FTP.

Preparing Producer-ready Web pages is equally simple. Vivo uses Microsoft's Object Class definition code (sounds bad, but there's a sample included), which may at first seem daunting to anyone with no HTML experience. The actual operation, however, is

no more painful than cutting and pasting into your Web page's file and providing correct paths to the video files. Use of this code allows people using either Netscape Navigator or Microsoft Internet Explorer to view Producer videos with equal efficiency.

Lastly, users need to instruct their Webmasters to register Vivo's Multipurpose Internet Mail Extension, or MIME, on the server where the video files reside. (MIME is the standard for sending multimedia and binary data over the Net and is essential for ensuring decent video transmission.) Make sure that your Webmaster is willing to do this before embarking on a large project.

Web producers will want to check out other video streaming products such as Progressive Network's RealVideo (<http://www.realaudio.com>), Xing's StreamWorks (<http://www.streamworks.com>), Apple's QuickTime (<http://quicktime.apple.com>), and Vosaic (<http://www.vosaic.com>). Bottom line: Viewability with any streaming product depends on a variety of factors, including frame rate, client/server CPU, bandwidth (on both ends), video format, and the method in which the footage was shot and edited. Honestly, you won't be able to view video produced with any of these products using anything slower than 28.8Kbps—and even that's too slow.

Vivo's technology isn't up to "PrimeTime Live" quality—yet. But the video delivered by this simple, affordable, and easily configurable application allows for solid industrial visualization over a range of conditions, as well as boot-camp experience in what many people feel ultimately will become the Internet's killer app—good-quality video on demand over the Web. —James McBride



THIS IS THE FACE of the streaming video as seen by users who download and install the VivoActive Player.



GOOD NEWS: Easy to use. Decent video quality.

BAD NEWS: Weak documentation accessible only in Apple Guide. Viewing requires VivoActive Player plug-in.

reviews



reviews

Dizzy

COMPANY: Vertigo Technology

CONTACT: 888-4-VERTIGO, <http://www.vertigo.com>

PRICE: \$49 (SRP), \$88 (SRP) for version 1.0

REQUIREMENTS: Power Mac, CD-ROM drive, System 7.1.1 or later, QuickDraw 3D 1.5, Adobe Photoshop 3.0.5 or later, or Adobe Premiere, Adobe After Effects or Adobe PhotoDeluxe (recommended: 604e-based Mac, 16MB or more of RAM devoted to Photoshop)

You know 3D has really arrived for the Mac because the major players on Silicon Graphics machines have started coming over. Case in point: Vertigo Technology, which is dipping an ultracautious toe into Mac waters with Dizzy, a QuickDraw 3D plug-in for Photoshop.

Dizzy does just one thing: It brings 3DMF (QuickDraw 3D metafile) models into your Photoshop composition, or into any program that accepts Photoshop plug-ins, such as Adobe Photoshop, Adobe Premiere, Adobe After Effects, and Adobe PhotoDeluxe. When you launch the Dizzy plug-in from Photoshop's Filters menu (make sure you've got plenty of RAM assigned to the application, or Dizzy won't even open), you'll see your image in the Dizzy window. Import a 3DMF model, and it appears in the center of the image. Widgets along the top of the screen allow movement along the *x*, *y*, and *z* axes, as well as rotation and resizing. Add a light or two, click OK, and your object is composited.

Simple, fast, and for \$49, what's not to like? Well, for one

Fill the Plastic Void

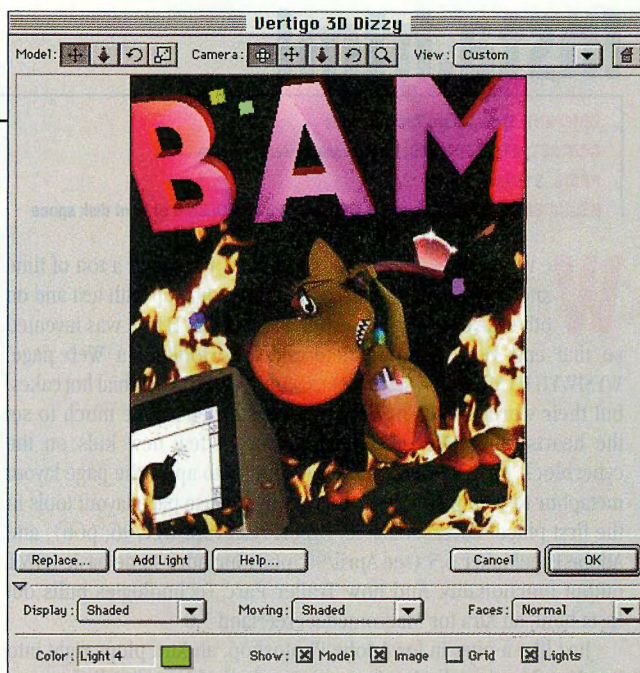
Need 3DMFs to feed your Dizzy habit? On the Dizzy disc, you'll find more than 400 models from Vertigo and Viewpoint DataLabs, plus access to 100 additional models downloadable from Viewpoint DataLabs' Web site. But for 3D art with attitude, check out two new "clip3D" CDs from Plastic Thought. Active Art Web Edition includes low-resolution Web-ready objects, and 3D-Active Volume 1 is a starter collection of high-resolution models for illustration and animation. Cruise over to <http://www.plastic-thought.com> for more info.

If you're still not satisfied, there are 3DMF's aplenty on the Web. Viewpoint DataLabs always has samples available even if you aren't a Dizzy owner. Point your browser to the Acuris site at <http://www.acuris.com> to



order a sampler of this 3D-model-vendor's wares. Most 3D application developers offer sample 3DMF models on their Web sites, too. The best Net clearinghouse for leads on 3D models and info of all kinds is 3DSite at <http://www.3DSite.com>.

AN EMBARRASSMENT OF 3D: Plastic Thought's 3D clip art includes a virtual ton of 3D models for you to use and rotate to your heart's desire.



GET DIZZY OVER 3D: The BAM letters were imported into Dizzy, dragged into place, and illuminated with four colored lights (the little floating cubes).

thing, the object placement, sizing, and rotation tools could provide more feedback. There's too much trial-and-error dragging, even with the program's phantom ground-plane grid. Better would be a bounding box or sphere around the object with colored handles for dragging, resizing, and rotating. You can set and save custom views, making it easy to import models at the same orientation, but that presupposes you can get at least one object into the right position.

And to my mind, the lighting tools are underpowered. Granted, lighting is one of the hardest 3D things to get right, and the one aspect that 3D newbies may least want to play with, but I missed the power to adjust lighting type, intensity, and falloff. For people who don't want or need to mess with multiple lights, Dizzy should offer a simple ambient-light slider control; but for lighting experts, individual lights should have more parameters than they do now. In the version we tested, images were rendered in QuickDraw 3D's default renderer, which looks pretty ragged, and models came into Photoshop as a simple selection, with no antialiasing. The updated version, which should be available by the time you read this, will put the model on its own Photoshop layer and will support multiple models, too. Render quality should be excellent with the supplied Lightworks QD3D renderer, which supports scan-line rendering, soft shadows, texture mapping, background and foreground shading, and anti-aliasing. Vertigo says Dizzy 1.0 will also support different light types, such as flood and spot lights.

Quibbles aside, if you have any interest in 3D at all, you should get Dizzy. —Steven Anzovin



GOOD NEWS: Easiest way on the planet to bring 3D into Photoshop. Price is very right.

BAD NEWS: Underpowered.



reviews

Insta.html

COMPANY: Trailer Parc Technologies

CONTACT: 415-248-1350, <http://www.trailerparc.com>

PRICE: \$179.95 (SRP)

REQUIREMENTS: FreeHand 7.0, 68040 or PowerPC, 2MB of hard disk space

We want our Web pages to look nice. We spend a ton of time and money trying to force graphics to line up with text and on other layout tweaks, despite the fact that HTML was invented so that end viewers could determine the look of a Web page. WYSIWYG HTML editors have been selling like the proverbial hot cakes, but their word-processor-like interfaces haven't done much to set the hearts of graphic designers aflame. A few new kids on the cyberblock, such as NetObjects' Fusion, try to apply the page layout metaphor to Web page creation, but why not use page layout tools in the first place? Extensis has its CyberPress (see Dec/96, p66), and Adobe PageMaker 6.5 (see April/96, p62) includes some basic HTML output functionality. And now Trailer Parc Technologies pulls out Insta.html, an Xtra for Macromedia FreeHand 7.0.

Just like a plug-in for Adobe Photoshop, an Xtra plops right into FreeHand, so installation is a snap, and all of Insta.html's features are accessible through the HTML submenu in FreeHand's Xtra menu. What Insta.html does, basically, is take that beautiful composition of line art, photos, and even dynamic objects such as Shockwave elements or Java applets, and translate the layout into a basic set of tables in HTML. It can also process all the images on the page to GIF or JPEG format, which it then stores away in a folder of your choice (though they all get renamed to some arcane scheme that will mean nothing to you), retaining all the image links. In theory, you can use all of FreeHand's powerful vector drawing and layout tools, then just select Output Document, and—wow, it's like seeing Elvis—you're ready to go onto the Web.

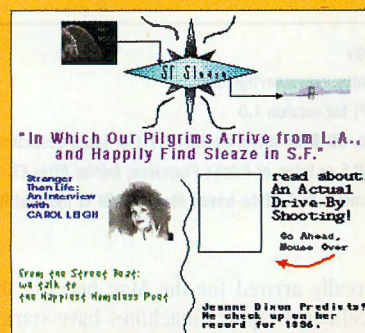
That's the theory, anyway. The first problem we encountered was with text: The default option for exporting text is as Netscape Navigator fonts (the other option is as HTML 3.2 fonts). Although this sounds like a good idea, keep in mind that the same logical size text looks a whole lot bigger when viewed in the same browser on a Windows machine. As a result, Insta.html's algorithms map your text down in size, so your page will have a whole lot of unexpected blank space. There is a workaround for this, but it's clunky (see sidebar at right).

Inserting a Java applet is even less fun. There is an Insert Dynamic Object option in the HTML submenu that gives you a reasonably sensible dialog box with the option of inserting a Shockwave file, an ActiveX file, or an applet, but things get touchy after that point. Not only does the manual give incorrect information about how to proceed (and it's only available in HTML form—nothing in print), but even with the help of a tech guy at Trailer Parc, we couldn't get a simple applet to run properly, even after figuring out how to make the counterintuitive dialog box insert the correct code into the outputted HTML file.

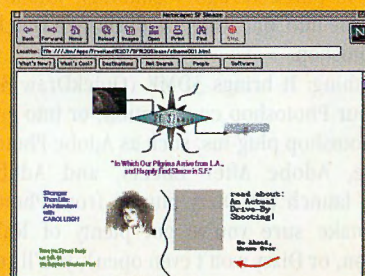
Here's the kicker: Insta.html is supposedly an Xtra for people who don't know or don't want to know how to hack around in HTML. However, just getting through Insta.html's controls and dialog boxes requires knowing the ins and outs of the code.

In the long run, Insta.html could be a powerful tool for those

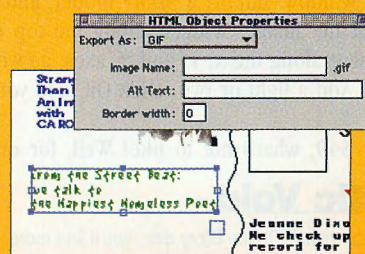
A WORKAROUND YOU'LL NEED



OK, IT'S NOT ART, but...Here's the original page, resplendent in its FreeHand virginity.



NOPE, THAT'S NOT IT: With the default text export options, this is what you'll get. Who knew? The documentation says nothing about it.



HERE WE GO: Here's the workaround. Select each and every text box individually, then go to the Object Properties option in the HTML menu and change Export as Text to Export as GIF.



THIS LOOKS MORE like what we wanted, doesn't it? Still, see that gray box? That's supposed to be an applet.

who work in FreeHand or have a lot of content in FreeHand format that they want to repurpose for the Web (especially if Trailer Parc solves the dynamic object problem). Remember, many pieces of software that looked barely promising at version 1.0 have become staples in our electronic existence. Here's hope that Trailer Parc can get this truck rolling. —D. D. Turner



GOOD NEWS: Enables cool Web page layouts without wasting bandwidth. Works well with FreeHand 7.0.

BAD NEWS: Some arcane command maneuvering necessary to handle applets. Manual only in HTML format—and not correct, to boot. Pricey.



Fusion 1.0

COMPANY: NetObjects

CONTACT: 888-449-6400, <http://www.netobjects.com>

PRICE: \$695 (SRP)

REQUIREMENTS: Power Mac, System 7.1.2 or later, 16MB of RAM, 10MB of hard disk space (60MB for full installation), CD-ROM drive

When it comes to Web page creation tools, the *cause célèbre du moment* seems to be Fusion. Fusion adds to page creation a simple site view for dealing with hierarchies and links within a site. The site view is welcome and, for the most part, useful. As for working with individual pages, we'll get to that later.

Upon launch, Fusion gives you a large space with a Home page icon. From there you build your site page by page, each time selecting New Page under the Edit menu, and dragging each page to wherever you want within the site (except onto the same level as the Home page). Fusion automatically updates all relative links. To rename a page, just click the title of the page's placeholder and type; again, all links will reflect the change.

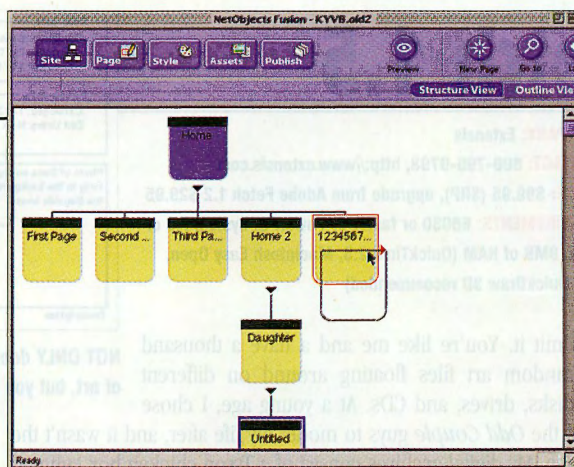
Although the site management features are handy and quite welcome, Fusion's Fisher-Price-style interface gets in the way more than it helps. Some common keyboard shortcuts are missing and others, such as Command-N (for new page) work but are not listed in the menu or the manual. If you resize the Fusion window to reclaim some of the screen (Fusion takes up *all* of it), some of Fusion's handy buttons will not be visible; worse, the window doesn't scroll to uncover them.

The included templates provide layouts and styles for banners, buttons, lines, and the like. The art is by noted designer Clement Mok, but you could've fooled us. What you get, with few exceptions, is barely above shareware clip-art quality. Still, if you tire of one style, it's easy to switch sitewide; simply press the Style button at the top of Fusion's page, select a new style, and the old style will be replaced universally. However, you can't select parts of the site to update unless you manually replace piece by piece.

Layouts for pages are accessible by clicking the Page button or by double-clicking a page's icon. You then see a window similar to one in a simplified page layout program. Grids can be turned on or off, and boxes for importing graphics or text can be placed anywhere on the page, not just along margins. The page is divided into Header, Body, and Footer sections (these are not frames and have no real HTML relevance), into which Fusion puts, respectively, a page banner and navigation bar, nothing, and a text-based navigational footer.

One good feature: place a navigation bar on each page and Fusion builds the bar in the site style. Also, when you add a page to the site, the new page appears in the navigation bar for every page. To boot, the button for the page that a user is viewing takes on a "clicked" appearance—no more rebuilding navigation bars in Photoshop.

As with all things Fusion, however, a good feature requires a deal with the devil: Although the navigation bars can be along the top or the bottom of a page, they are locked into Fusion's simplistic design paradigm. Also, if you switch site styles, Fusion isn't smart enough to compensate for changes in navigation bar sizes. If the new style's navigation bar is taller than the old one, the header



FUSION OFFERS USEFUL site management features. Here we're dragging a new page to a new place in the site. All relative links update automatically.



IF YOU MAKE a window smaller, you'll be unable to access some of the top right buttons—some buttons have menu equivalents, but some don't.

get to see the whole HTML of the page. (Manual insertion is Fusion's answer to all advanced HTML technologies.) Fusion also lacks other features we expect from HTML editors, such as spell checking, drag and drop, and previewing within the application (You can preview within a browser, however). NetObjects promises to add auto-frames, spell checking, and drag and drop in the next release of Fusion, due out in April. Form elements are supposedly supported in Fusion, but the CGI scripts included do not work on a Mac, and building the forms into a page is far more tedious process than in Claris Home Page.

All in all, Fusion offers a few new and welcome site management features that should be standard in all HTML editors. However, the overall interface is awkward and, if you don't abandon the very features that make Fusion interesting, locks you into a bad Web page design. Also, for the extraordinarily high price, you could buy a Web page creation program such as Claris Home Page and a site management package such as Adobe SiteMill and a ton of good HTML design books, or even hire a designer to do it all for you. Odds are, that person won't be using Fusion. —D. D. Turner



GOOD NEWS: A few powerful site management functions.

An interface so simple a boss can understand it.

BAD NEWS: Way overpriced. Locks users into bad Web page design.

Cannot handle frames at all. Overpowering interface.



reviews

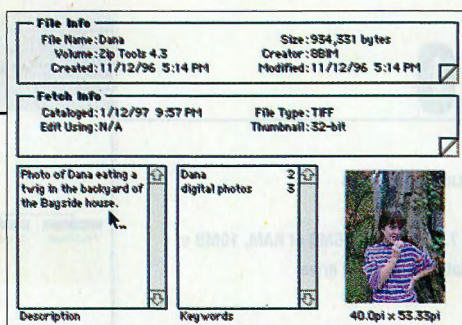
Fetch 1.5

COMPANY: Extensis

CONTACT: 800-796-9798, <http://www.extensis.com>

PRICE: \$99.95 (SRP), upgrade from Adobe Fetch 1.2 \$29.95

REQUIREMENTS: 68030 or faster or PowerPC, System 7.5 or later, 8MB of RAM (QuickTime 2.5, Macintosh Easy Open, and QuickDraw 3D recommended)



Admit it. You're like me and have a thousand random art files floating around on different disks, drives, and CDs. At a young age, I chose one of the *Odd Couple* guys to model my life after, and it wasn't the neat one. My digital archives consist of a Tyson chicken box jammed full of media, and it doesn't faze me a bit. Until I need something.

Those of us who refuse to clean our desks in order to preserve some vague, tenuous "system" are only fooling ourselves. There is no system. Get over it. Get Fetch. The good folks at Extensis have taken Adobe's workable program and made it better, twisting it to suit their own nefarious agenda—getting the rest of us organized.

Fetch 1.5 organizes all your files into digital "catalogs," which allow you to view by lists or thumbnail representations of up to 64 different file types at a time, including movable 3D objects and QuickTime movies. Fetch even lets you add new file types and update for new versions of applications when you upgrade.

The program cuts its find time by storing thumbnails that refer to the original files rather than the files themselves. Through a newly buffed-out interface, you can tell Fetch to grab files by matching or not matching any combination of keywords, file names, file types, or volumes on which the files are stored. (Each catalog theoretically can hold more than 100,000 items, although Extensis includes a disclaimer that says essentially: the longer the list, the longer the wait.)

Every thumbnail has a pop-out menu in which you can type an unlimited number of keywords, but keep these words in mind: diminishing returns. The box also has a place for an image description up to 32,000 characters long, which may be helpful when trying to pinpoint exactly who the idiot is with the lampshade on his head in all those photos. Still, Fetch could really impress me by allowing a search by keywords in the description. Sometimes photos or graphic elements get saved under keywords that leave out helpful signposts.

You can dramatically cut your search time by saving sets of frequently used keywords. You can even collect and trade them.

NOT ONLY does Fetch help you search through mounds of art, but you can attach descriptions to each item.

support. Fetch ships with an XTension for QuarkXPress 3.31 or later and allows you to plop cataloged media onto and into open documents without having to redraw a photo or text box.

Extensis claims a 30 percent increase in speed over Fetch 1.2 and increases of 100 percent during memory-intensive procedures such as viewing previews. Still, on the Power Mac 7100 with 24MB of RAM, I was waiting too long for the preview images to come up.

There are a few compatibility problems with Fetch 1.5. First, any Virtual Memory, whether the System's or a third-party gizmo such as Connectix's RAM Doubler, must be turned off. Also, fans of Berkeley Systems' AfterDark will have to turn off the screen saver or put it to "Never Sleep" while cataloging files or the system may crash upon startup. And RAM Doubler 1.6.2 users will have to upgrade to version 2.0 or turn it off while transferring JPEG files or chance a meltdown.

I had a few crashes on a 7100 while cataloging some TIFF photos with Adobe PhotoShop 3.0 open. If you call them, the techies at Extensis will point toward a corrupted file. They say Fetch 1.5 has been a pretty stable program all around.

If you notice certain files giving you a problem, try reopening them in the application in which they were created and saving them as a different file.

Bottom line, if you have what we in the business call "a greasy chicken box full of disks" and you're looking to fulfill at least one of those still-pending New Year's resolutions, shell out the \$99.95 and fetch a copy of Fetch. It's easier than going on a diet. —Ray Larsen



GOOD NEWS: Easy to grasp. Support drag and drop. Powerful Find capabilities.

BAD NEWS: Preview still slow. May not play well with other open applications.



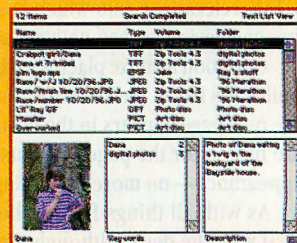
STEP 1: You have a ton of images stored, but you really want one in particular. Where'd you put it? And what was its name? Well, that's what Fetch is for.



STEP 2: So, you remember certain things about the photo, such as who was in it and where it was taken. You also might know what program made it, but you aren't sure, so you can make that criterion an "or" part of the search.



STEP 3: Ah, there it is. For folks with monster-large image collections, this could've just saved a week of browsing.



STEP 4: If you want more keyword detail, you can view the results of your search by text.



Color It! 3.2

COMPANY: Microfrontier

CONTACT: 515-270-8109, <http://www.microfrontier.com>

PRICE: \$149.95 (street)

REQUIREMENTS: A color-capable Macintosh (68020 or faster), System 7.0 or later, 2MB of RAM (3MB for Power Macintosh)

Everybody knows about Photoshop, Adobe's king of applications. It even has become a verb in common usage (at least among computer jocks), as in, "Let's Photoshop Dave's head onto this lingerie dummy." However, not everybody owns Photoshop, whether because of the high price tag or the demanding system requirements. If this sounds like you, does it mean you are doomed forever to only dream of working with a powerful, pixel-based image-editing package?

Heck no. You have an alternative: Microfrontier's Color It! 3.2.

Think of Color It! as Photoshop for the little guy. The guy who wouldn't toss out that LC III because he knew it had been there for him, the guy who wanted a shot at Adobe's big toy but never had the breaks or the dough.

Color It! is available on the cheap—about \$150. Although it doesn't have all the goods that Photoshop 4.0 offers, it's there for you to retouch almost any image, whether it's a photo of your niece or a graphic for your latest Web page.

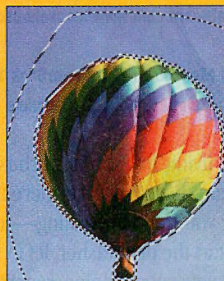
This program succeeds for two reasons. First, it employs the same basic tools and working methods as Photoshop. All the crucial tools—the magnifier, the eyedropper, the smudge tool, and the others—work identically to their Photoshop counterparts, if not as accurately. You can save a graphic in all the basic formats, be it TIFF, JPEG, or Photo CD. You can anti-alias just about anything. Second, the type tool is significantly more straightforward than Photoshop's, which can be arcane even to the professional.

Color It!'s value for price isn't unique. A freeware program called NIH Image performs a majority of Color It!'s (and Photoshop's) functions. But Color It! has a distinguishing feature: an honest-to-goodness paperback manual complete with descriptions of the tools, menus, and filters. A book you can read and dog-ear whether you're in the middle of airbrushing the lines out of your face or you're on the beach gathering more of them. It's a complete, descriptive reference that weighs only a fraction of your lightest dumbbell.

The 50-page tutorial affords you a quick way to master the program. If you're a beginner, go directly to it. Three chapters walk you through creating an ad, using a wide selection of the tools in the program. You use masks, touch up flaws, fool with brightness and contrast levels—all those things that you're vaguely aware of but never learned how to do. Moreover, because Color It! uses the same basic setup and tools as Photoshop, it serves as a general Mac graphics tutorial.

Despite everything Color It! offers, it isn't Photoshop. You can't layer images. You can see only individual CMYK channels. The preview dialog boxes show only small portions of the "before" and "after" change in filters rather than the entire photo. Not surprisingly, fewer filters are included with the program than with Photoshop. The scissors tool isn't as accurate as Photoshop's. And

MAKE A MASK IN THREE STEPS

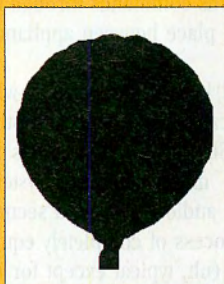


STEP 1: Click on the lasso tool in the default tools palette and draw a wide swath around the object. Click the magnifying tool and click the object twice so that you can see its edges clearly. Choose the scissors tool from the tools pop-up menu. Clicking and dragging with your mouse, make an outline around the object.

IMPORTANT: You must make the scissor cuts connect all the way around in order to remove the area between the lasso and scissors!



STEP 2: Choose the zap tool from the tools pop-up menu. Place the icon in between the area created by the lasso and scissors. Click. The object now has been separated from its background.



STEP 3: Pull down the Selection menu and choose Mask Operations->Selection to Mask. Pull down the Selection menu again and choose Selection Type->Document. Pull down the Selection menu one more time and choose Mask Operations->Invert Mask. Don't forget to save your document!

the tool setup, which is hard to access from outside the tools palette, is not as intuitive as in Photoshop, though that hardly matters if you didn't know what the Photoshop tools did in the first place.

And that's the reality. A graphics program isn't worth a hill of beans if you don't know how to use it. Microfrontier's Color It! 3.2 is easy to learn, easy to use, and gives you the ability to make drop-dead images. Also, it didn't crash on the LC III or the Power Mac on which we tested it. Not once. If that doesn't make your Windows rivals cyan with envy, well, they're just dreaming.

—Robyn Weisman



GOOD NEWS: The manual! CD-ROM comes with loads of extras, including royalty-free photos and other goodies. Takes up very little RAM.

BAD NEWS: No Photoshop-style layering. Scissors tool inexact. Can see only one CMYK channel at a time. Cannot see whole "before" and "after" versions of graphic in the preview box.



reviews

MouseHouse 1.0.2

COMPANY: Swing Software

CONTACT: 810-336-9000, <http://www.swingsoftware.com/www/mousehouse>

PRICE: \$69 (SRP)

REQUIREMENTS: Any Mac or Power Mac except Mac Plus, SE, or PowerBook 100; System 7.0 or later; CP290 Home Control Interface; at least one X-10 module

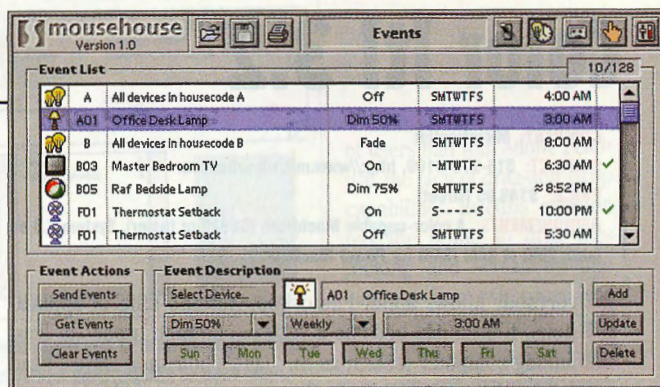
Your home may be “a machine for living in,” as Le Corbusier said, but it’s a machine without a brain. It basically sits there like a dumb, spoiled prince, waiting for you to do everything—turn the lights on and off, set the thermostat, start the dishwasher, let in the cat, feed the dog. The amount of time you spend doing repetitive household tasks is tragic.

Even more tragic, your house actually has a brain—your Mac—but the two aren’t talking. It doesn’t have to be that way, though. The home automation revolution has flourished on the PC, which boasts several top-notch applications. The Mac, however, has been shut out because of a lack of decent home automation software.

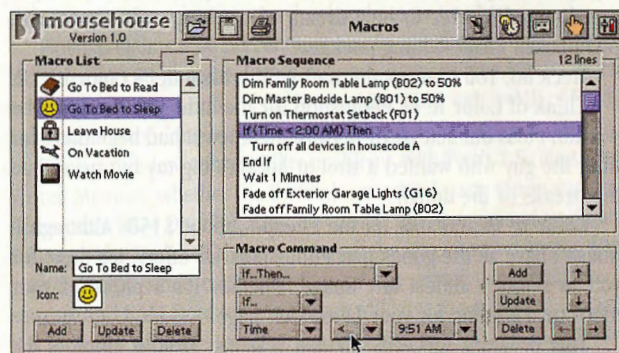
MouseHouse changes all that. This liberating application controls any electrical appliance or electrically controllable system in your house directly from your Mac, and does it elegantly.

MouseHouse uses the X-10 protocol, a well-tested method of controlling electrical appliances using the 110-volt wiring already in your home. Commands from MouseHouse are routed to an external controller, the CP290, which plugs into the serial port on your Mac. The CP290 then sends commands through the power lines to X-10 modules that you place between appliances and their wall outlets.

X-10 is a hardware standard, and lots of hardware is what you’ll need to control your house, because each lamp and other device needs its own X-10 module. Simple on/off modules for lamps are cheap, around \$10, but more elaborate systems for climate control, voice recognition, audio, video, and security can run into real bucks. I’m in the process of completely equipping my typical three-bedroom ranch (uh, typical except for the five Macs in the former family room), and I expect to spend \$600 or so—more if I spring for the X-10 doggie door and the X-10 pet-food dispenser. Unfortunately, MouseHouse doesn’t ship with any X-10 modules to get you started, not even the required



DEVICE CONTROL FREAK: You can tell MouseHouse what to do and when at each X-10 location. Note the high level of detail control for each event.



CASCADING EVENTS: Set up and trigger complex events with MouseHouse macros.

CP290 (which costs about \$50 from home automation suppliers).

Apart from the lack of hardware, MouseHouse is well thought out and easy to use. Once you’ve placed the X-10 modules, you enter each module location into MouseHouse’s Devices view; set the daily, weekly, monthly, and yearly schedule for each in the Events view; and finally tweak other parameters (for example, the brightness level for lights with dimmers) in the Actions view. You may trigger a series of events and actions all at once by defining a macro in the Macros view.

You can make multiple house files for season-specific schedules (summer, winter) or even different houses (don’t forget your PowerBook when you’re off to your luxurious summer cottage). MouseHouse knows when the sun rises and sets and can figure on/off times accordingly. I assumed I would have to leave my Mac on all the time, but that’s not the case; commands are downloaded and stored in the CP290, which then operates independently of the computer. (The number of commands you can store is limited, however; a very large X-10 system might tax the CP290’s capabilities.) I found the software so easy to use that my family had more trouble deciding when to turn on the Maytag at night than I did programming our decision into MouseHouse.

Having a home with a brain is taking quite a load off my mind. Now all I need are X-10 modules to fix dinner, take out the garbage, mow the lawn, and clean the rain gutters. —Steven Anzovin



GOOD NEWS: Sorely needed and smoothly designed.

Comprehensive external device controls.

BAD NEWS: Interface hardware not included.

Get Yer X-10 Here

Need X-10 stuff? You won’t find modules in your local hardware store, but ramble on down to your local Radio Shack and you’ll probably find a small selection of X-10 light and appliance modules. Careful, though: Radio Shack will try to sell you an IBM Aptiva with Windows X-10 controller software to go with them. Radio Shack has an exclusive agreement with IBM to sell the Aptiva-branded X-10 system, and some stores may hoard X-10 goodies for their Aptiva customers.

For a much wider selection of home automation products, check out the Home Automation Systems catalog (800-SMART-HOME, 714-708-0610, <<http://www.techmail.com/smarthome>>). Along with the standard modules, it offers such exotic fare as the Automatic House Plant Watering System (no more dead spider plants), the ReX-10 Barking Dog Alarm System (put a virtual German shepherd in your home), and my personal favorite, the Drape Boss Drapery controller (pulls the shades every morning).

Mah Jong Parlour



Accelerated for
Power Macintosh

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reviews

Burn It!

COMPANY: Synchronys Softcorp

CONTACT: 888-777-5600, <http://www.synchronys.com>

PRICE: \$29.95 (SRP)

REQUIREMENTS: Any Mac, System 7.0 or later, 4MB of RAM, 1MB of hard disk space

Burn It! purports to keep your data safe with its four modules: Burn-it, Hide-it, Show-it, and KeyDisk. Burn-it destroys data. Hide-it and Show-it are a matched set; one makes files invisible and the other returns them to view. KeyDisk locks up your data.

KeyDisk "locks" (Synchronys' word for "encrypts") a file with either a password or a key disk (a floppy disk containing the password). A bonus to locking is saving space; KeyDisk automatically and quickly compresses as it encrypts data.

Does Burn-it really destroy data? Yes and no. "Burning" (overwriting file data with 1s and 0s three times, as per Department of Defense standards) a whole disk leaves a few tell-tale trails. For example, aliases are not burned but become unattached to any original. Also, file names can occasionally be recovered with tools such as Unerase in Symantec's Norton Utilities. Still, aside from a few file names and aliases on a burned drive, you're safe. Just don't name files or aliases too descriptively—



BURN IT! AUTOMATICALLY creates four aliases on your desktop, for quick data protection.

Stolen Corporate Secrets might cause consternation later.

For your viewing pleasure, as it burns data, Burn-it displays your choice of animated icons in place of the disappearing file. There's a burning trash can, a shredder, a

black hole, or the inimitable fury flame.

Hide-it is a handy gadget. Drop a file on its icon and the file is invisible. You can make the file visible again with ResEdit, but using Show-it is easier. Double-click Show-it, and invisible files are available via an Open dialog box. If you don't remember where you hid a file, you may spend some time looking, but because only files hidden by Hide-it appear in Hide-it's Open dialog box, you'll find the stashed data.

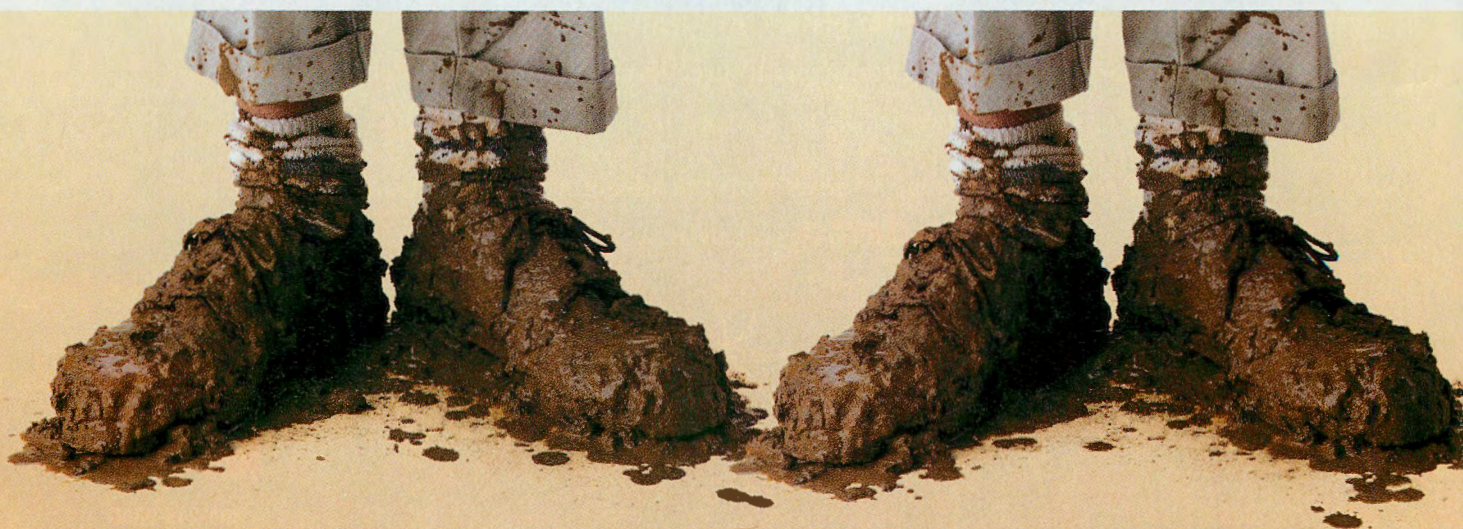
Although Burn It! leaves the occasional file name behind, it should satisfy the Oliver Stone in you. —*T. Kelley Boylan*



GOOD NEWS: Compresses as it locks data, plus it lets you take the key with you.

BAD NEWS: Leaves occasional file and alias names, which compromises security.

There's a faster, cleaner



Houston, we have liftoff. Presenting the Apple® Internet Connection Kit. Everything you need to blast onto the Internet, browse the web, and send e-mail in one simple to install, no hassle package. So what do you get? Well, the kit comes complete with Netscape Navigator™ 3.0 and Claris Em@iler™ Lite software, plus QuickTime® VR Player, RealAudio™ Player, Macromedia Shockwave, Adobe™ Acrobat™ Reader, Farallon's Look@Me, and a host of other software that installs easily in just minutes. As if that weren't enough, Apple Internet Dialer will even help you select an Internet Service Provider, and set up an account with just a few clicks of your mouse. And if you have any problems, Apple Guide online help can answer any Internet related questions you may have —

reviews



reviews

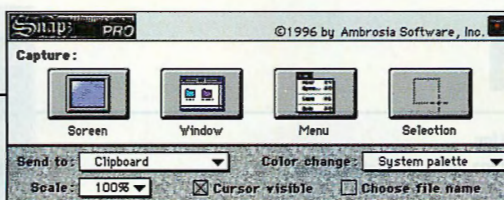
Snapz Pro

COMPANY: Ambrosia Software

CONTACT: 716-325-1910, <http://www.ambrosiasw.com>

PRICE: \$20 (street)

REQUIREMENTS: System 7 or later, any color-capable Macintosh



CLICKERAZZI:

This is what you see when you activate Snapz Pro. Plenty of options, yes? And all are useful.

When a program performs a single function and performs it well, that's something. Snapz Pro is something. This utility, developed by Ambrosia Software, goes about the business of capturing what's on your screen and putting it on your hard drive, all with a minimum of headache.

Snapz Pro goes beyond the standard Command-Shift-3 salute by allowing you to select what part of the screen you want to capture. When you hit the user-definable Snapz Pro hot key, a palette comes up that offers four types of screenshots: Screen, Window, Menu, and Selection. By pressing the respective button, you can capture the full screen, a window on the screen, a menu that you hold down, or a selection that you define. Snapz Pro also lets you remove the pointer for clean screenshots.

Snapz Pro's options let you rename your file on the fly; send it to the clipboard, printer, or new folder; or change its file creator type to any of several graphics programs (such as Deneba Software's Canvas or Adobe Photoshop) so that when you double-click the document,

the program automatically opens it. Snapz Pro also can crop, scale, or dither a screenshot before saving it to disk.

Snapz Pro compares well with Captivate Select, part of Mainstay's Captivate image utility package. About the only feature that Captivate Select has that Snapz Pro doesn't is the ability to save in several different file formats, including TIFF and GIF. Given Snapz Pro's price, however, it's easy to overlook this minor shortcoming.

If you capture lots of screenshots, or you need to capture specific, difficult-to-grab parts of the screen (such as menus), then Snapz Pro fits the bill. Snapz Pro has never let me down when taking screenshots, snapping pictures like *paparazzi* outside Madonna's house—and without crashing (which is a problem in certain applications). Snapz Pro is worth the investment. —David Reynolds



GOOD NEWS: Easy, crash-free screenshots. Great price. Lots of options.
BAD NEWS: Files are saved in PICT format only.

way to get on the Internet.



like, "This was so easy, why didn't I do this sooner?" The days of plodding along with complicated connections are over. With Apple, getting on the Internet now happens at warp speed. Visit your nearest Apple reseller, or order by calling 1-800-950-5382, ext. 1401. Apple. The power to be your best.

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reviews

Rama

COMPANY: Sierra On-Line

CONTACT: 800-757-7707, <http://www.sierra.com>

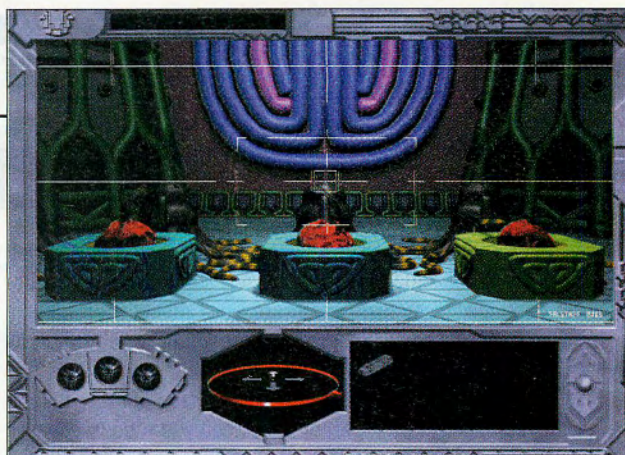
PRICE: \$54.95 (street)

REQUIREMENTS: 33MHz 68040 or faster, 8MB of RAM (16MB recommended), 50MB hard disk space, CD-ROM drive

In Arthur C. Clarke's novel *Rendezvous With Rama*, a huge cylinder (which turns out to be an artificial world) arrives in the solar system. A team of scientists sets out to investigate it and, if the behemoth is a threat, destroy it. Much of the novel is about how we humans would react to such an intrusion into our space: Would we try to welcome the aliens, or destroy them out of hand. What would *you* do?

In Sierra On-Line's new adventure, you're an astronaut dropped into Rama to replace a dead team member. Your job is to explore the cylinder. At some point, Rama directs itself toward Earth, precipitating a paranoid response among some team members. Your mission then becomes to prevent the detonation of the nuclear devices armed in various places in the cylinder.

Rama's point-and-click interface is easy to learn, although we were annoyed at some delays on our Performa 6400—it shouldn't take upwards of a minute for a click to register. At times it seemed as



LATER IN THE GAME, Puck is joined by Falstaff, who can maneuver into nooks and crannies the human hand can't reach. Via the link with your wrist computer, you can see the octospider babies through Falstaff's eyes.

if we were staring at the black transition screen longer than at the game screens. Fortunately, this problem did not affect the entire game. The inventory mechanism is useful: You can see what's in it and discern details in each item. This is important, because in the first section of the game, you have to pick up a bunch of similarly shaped

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plaques to use as keys. The inventory facilitates solving this kind of puzzle, rather than being obstructive as in other point-and-clicks.

Another interface innovation is the holographic tour guide, Puck. Although he/she/it doesn't wear an *H* on its forehead, à la Rimmer in the *Red Dwarf* TV show, you can tell Puck's not human, because it's only one foot tall. Puck puckishly comments on the surroundings, essentially providing the "look at" command of old text adventures.

Most of the game involves picking up things, recognizing patterns, and solving number theory problems. Be sure to pick up everything and anything, even though there are plenty of red herings strewn throughout the cylinder. The puzzles are tough enough to satisfy the most jaded gamer. If you're not a left-brain type, skip Rama; you won't be happy.

The rest of the game is full-motion videos providing backstory. Although the videos display essential plot points and directives, they are the only part of the game that doesn't ring true. The problem

RAMA IS RICH with scenes such as an avian alien proffering a manna melon. Didn't your mother tell you never to take candy from strangers?

with videos of actual humans interacting with the game player is that natural conversation is a two-way street; canned videos can never react or change. This shortfall is not helped by the acting, which isn't *too* bad in this title (Clarke performed the best in front of the blue screen).

Because the videos take up so much space on the CD, the rest of the game is limited. What if you're not a goody-two-shoes and want to help the paranoids set off bombs? No can do. The game ushers you down a set path, and you have no choice but to connect the dots in order to win. This is true of many adventure games, but this adventure game is based on a rich universe. By limiting plot points, the richness of the original is simply not conveyed.

So you are left exploring. And exploring Rama is an excellent adventure. If you are an analytical, patient person and have a fairly hefty Mac, we have no reservations about recommending Rama.
—Kathy Tafel



reviews

Rama Lama Ding Dong

- Some of the puzzles involve figuring out math in bases other than 10. You can find a shareware converter at <http://hyperarchive.lcs.mit.edu/HyperArchive/Archive/sci/calc>.
- If you get completely lost, a walk-through is online at <http://users.deltanet.com/users/balmond/rama/rama.htm>.



GOOD NEWS: Deliciously difficult puzzles. Exquisite animation. Useful inventory mechanism. Cute holograms.

BAD NEWS: Hefty RAM requirements. Occasional annoying delays responding to clicks.

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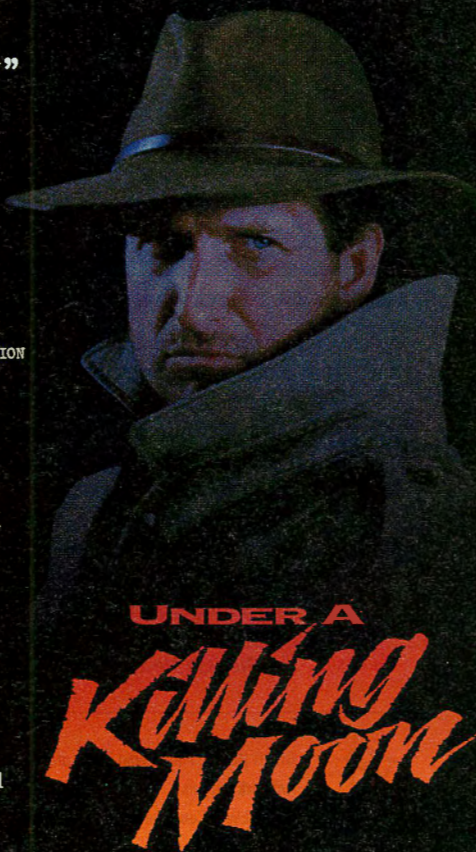
—CD-ROM TODAY
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—USA TODAY



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Under A Killing Moon stars Brian Keith (*Hardcastle & McCormick*, *The Parent Trap*), Margot Kidder (*Superman I, II, III*), Russell Means (*The Last of the Mohicans*, *Natural Born Killers*), and features the voice of James Earl Jones (*Star Wars*, *Field of Dreams*, *The Lion King*).



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reviews

Mah Jong Parlour

COMPANY: Aspyr Media

CONTACT: 512-708-8100, <http://www.aspyr.com>

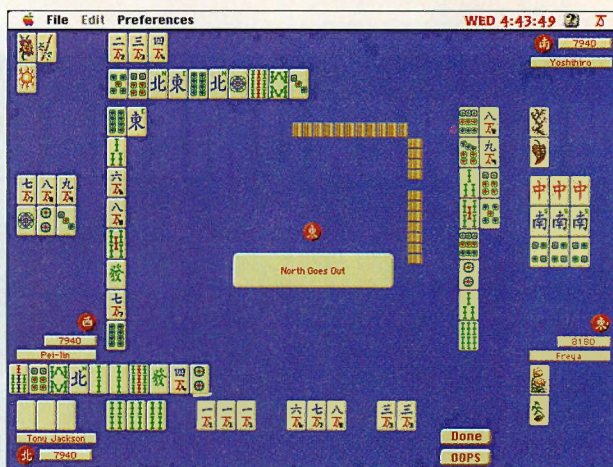
PRICE: \$37.95 (street)

REQUIREMENTS: 68020 or faster processor, System 7.1 or later, 1.5MB of RAM (for network play: AppleTalk or TCP/IP)

If it seems exotic, think of mah jong as counterclockwise gin rummy. Hearts, clubs, and so on are replaced by bamboo, circles, characters, dragons, seasons, and flowers. Sets are replaced by *poong* (three of a kind) or *kong* (four of a kind), and runs are *chow*. There are restrictions on when players can pick up a discarded tile and make a call, but that only adds to the complexity of gameplay.

Mah Jong Parlour provides three levels of play: novice, intermediate, and expert. Novice-level players aren't penalized for making incorrect calls, and the game gives a long pause between discards. The Apple Guide aids are helpful in learning what's what, but gameplay is better described in the electronic manual on the installer CD.

Mah Jong Parlour has the potential to thrive as a cult Net game. It doesn't rely on intense graphics and has a built-in messaging



A WINNING HAND: You (at bottom) slap down the tiles and call, "Mah jong!"

system, so play over a local-area network or the Internet is ideal. It runs on just about anything faster than a Mac 512K, so even your friend who bought your old system can join in without a handicap. Because it requires only 1.5MB of RAM, you can easily leave Mah Jong Parlour running in the background.

Play moves smoothly and quickly, the tiles look great at several screen resolutions, and the game gives an addictive twist to classic card games. The folks at Aspyr Media, the publisher, are interested in delivering more high-quality Mac-only games, so if you like this one, let them know in your own choice of words.

—Melissa Mecca



FIND A DEMO OF Mah Jong Parlour on The Disc.



GOOD NEWS: Fills a void in the classic-game category. Nice interface. Network options.

BAD NEWS: Could have more hand-holding features for first-timers.

reviews



MessagePad 2000

COMPANY: Apple

CONTACT: 800-800-APPL, <http://www.newton.apple.com>

PRICE: \$1,099 (street) with keyboard, accessories, and software bundle; \$949 (street) with smaller software bundle only

With the introduction of the Pilot (Jan/97, p78), Apple's Newton division got a hard kick in the pants. After all, the Pilot does almost everything the first generation Newtons did. It has a built-in calendar, address book, to-do list, and memo pad, corresponding roughly to the Newton's Names, Notes, and Dates. The Pilot doesn't have as flexible an OS, fancy accessories, or as many programs available, but at less than half the size and weight, and a battery life of two months, the Pilot is a perfect little personal digital assistant for someone who needs only an electronic organizer.

For those in need of a machine that's more powerful, but still portable, the MessagePad 2000 fits the bill. Though not a full Mac like the PowerBook, the MessagePad costs much less, uses less power, and weighs less. In short, most portable computing tasks, aside from multimedia presentation, can be handled wonderfully by this little workhorse.

You don't need to tote around a clunky recharging station: the MessagePad's (optional) AC adapter can recharge your AA batteries when the Pad is turned off (you *do* have to buy rechargeable batteries). Even with the backlighting turned on, the MessagePad boasts 24-hour battery life, provided you aren't using a modem continually. With the included Works software, you have a real word processing program. And the handwriting recognition software is so improved (after an hour of teaching the Newton your handwriting), you can just forget all those nasty Newton jokes. The 161MHz StrongARM 110 RISC processor actually kept up with my writing. The machine also sports 4MB flash RAM for storage—2.7MB more than the MessagePad 130.

The MessagePad 2000 can also record your thoughts with a built-in microphone and speaker. On the down side, you can't save your recording as a sound file: recordings are added to the three note types available in the Notes application (note, checklist, outline). Don't expect to dictate an epic, either—the recording can only hold two minutes of audio. But the MessagePad easily connects to the Internet. In fact, it's easier to connect this MessagePad than it is to connect a Mac. After you put a modem PC card into one of the two Type II slots, it's simply a matter of filling out three forms (phone number and user name, IP addresses, and log-in script) to create a PPP connection, and the setup program has templates for over 30 major ISPs. Just untie and plug in the phone cord and then you can launch AllPen Software's NetHopper (408-399-8800, <http://www.allpen.com>) and begin surfing immediately. While pictures are not automatically downloaded, the MessagePad's 16 levels of gray can display them upon command. Any e-mail program that uses TCP/IP is automatically supported.

The serial port has been squished (see picture) to make the MessagePad 2000 flatter. But instead of only eight pins, this connector has 26 pins. This means that current accessories need an adapter;

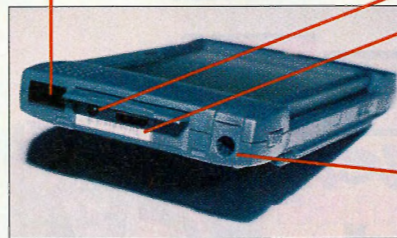
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THE WORKS SPREADSHEET sports your standard cells, which can contain math, time and date, financial, and statistical functions, as well as if statements.

smaller hands to grip—instead you have to hold it on one side with your thumb on top and your fingers halfway around the back. In this position it is easy to feel the extra four ounces (1.4 pounds total).

Apple is committed to selling and marketing the MessagePad 2000 and its sister, the eMate 300. As for the Newton's future, we're not sure. We can only hope, as this current Newton implements in every way the original promise of a PDA: a very small, yet powerful machine, that at the same time can organize your individual data and connect to a global network. —Kathy Tafel

Dual mode Infrared transceiver.



Optional adapter port.

Serial port connects Pad to your Mac, external modems, printers, external (line-level) microphones, or keyboard.

Storage space holds (nontelelescoping) stylus pen.

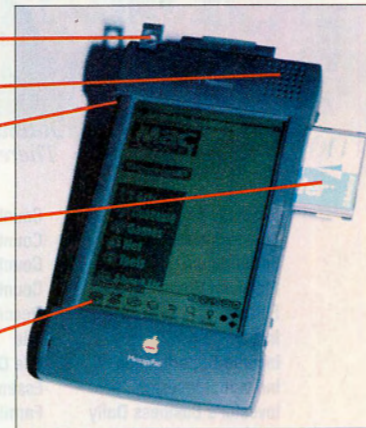
Sliding stylus holder.

Built-in speaker and microphone.

Power switch also turns on EL backlighting when held down.

Two Type II PC card slots can hold modems, pagers, wireless communicators, and storage cards.

Low power, transfective LCD display gives 480 x 320 pixels at 100dpi, with 16 levels of gray.



GOOD NEWS: Built-in Internet and productivity software.

Long battery life. Powerful processor. New backlighting.

BAD NEWS: Too wide to be comfortable in small hands. Heavier than predecessors. Flat serial port requires peripheral vendors to retool cables.

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reviews

Epson Stylus Color 800

COMPANY: Epson America

CONTACT: 800-463-7766, <http://www.epson.com>

REQUIREMENTS: 68040 or PowerPC, System 7 or later, 8MB of RAM, 25MB of hard disk space, serial port

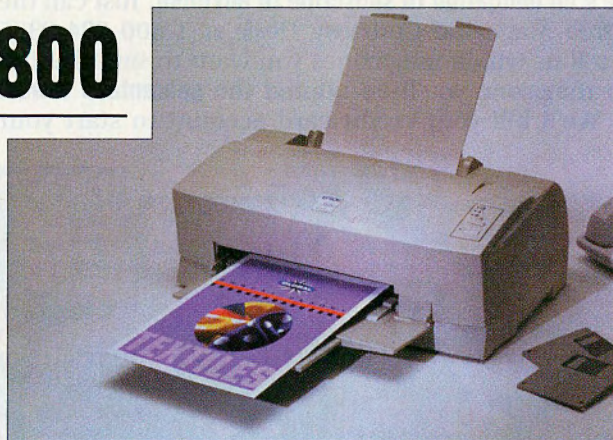
PRICE: \$449 (street)

Epson's new Stylus Color 800 competes favorably with high-resolution, \$5,000 color laser printers. We've never seen such high-quality printouts on an inkjet before. The Stylus Color 800 sports awesome specifications—up to 1,440-x-720-dpi resolution, CMYK inks, optional Adobe PostScript Level 2, optional Ethernet, and a print speed of up to 8 pages per minute (ppm) in black and white (7 ppm in color). Note that these speeds are at the printer's

lowest resolution (360 dpi) and for simple pages, but in our tests Read Me files flew out of the printer.

Setup is easy. Just load the Epson printer driver, hook the printer to your Mac's serial port, and start up. The Stylus Color 800 uses two ink cartridges, one for the three color inks and one for black. The first time you start the printer, there's a long initialization period of up to seven minutes, and about one minute each time you turn on the printer. The biggest problem with the Stylus Color 800 is that it's noisier than most inkjets both when printing and during initialization.

The noise and lengthy initialization periods are caused by Epson's new printhead, which carries the kicky title MicroPiezo. What this means to real folk is that the piezoelectric printhead (which forces ink onto the page through electro-mechanical pressure, not through a boiling process that most other inkjets use) uses more and smaller nozzles than before. The result is higher resolution and more precise placement of the ink dots on the page. During the lengthy initialization period, the Stylus Color



THE STYLUS COLOR 800's footprint is big, but quality has its demands.

800 is busy clearing and aligning those tiny nozzles. It's the little electric zaps that cause the noises.

Theory aside, the new printhead works. The Stylus Color 800 gave us images of near-photographic quality that we couldn't believe came from an inkjet. The paper made a significant difference; an image of a calico cat came out much brighter, with much whiter whites and blacker blacks, on coated stock than on plain paper. (Epson's Photo Quality coated inkjet paper is \$29.95 for 100 sheets; you can economize by printing drafts on plain paper first.)

To boot, the 3-x-5-inch image (a 17MB file) of the calico cat printed in less than four minutes, even at the highest resolution. For type, printing 24-point type on regular paper at 360 or 720 dpi showed some blobbing around the edges of characters, and printing at 720 dpi on coated paper still demonstrated a few jaggies, but only under close scrutiny. At 1,440 dpi on coated paper, the Stylus Color 800 produced type equal to that of laser printer output on plain paper; both pages printed in about the same amount of time.

The Stylus Color 800 is networkable, through either AppleTalk or Ethernet. The optional Ethernet card costs about as much as the printer (\$450 street), but it is easy to install and can work with Macs or PCs. Once the card is seated properly, simply plug the printer into an Ethernet port, and anybody who has the Epson driver installed locally can go to the Chooser and—wham—it's there.

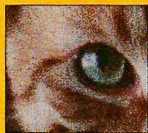
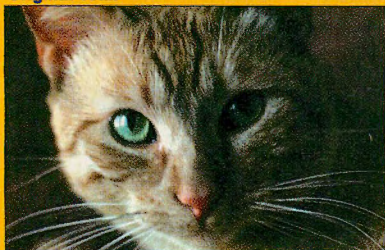
One last note: Epson's printer driver options are head and shoulders the best we've seen. They offer a clear explanation of your current settings, a simple "Quality or Speed" slider, and a huge array of color-control options. An onscreen monitor shows you how much ink is left in each cartridge, so you don't have to guess.

This printer offers much to wow you, especially at the price. Our niggling reservations, such as mild noise and slow startup time, are truly niggling. This printer could be a boon to small graphics studios. If you don't need Ethernet or PostScript, and can live with slightly lower print speed, Epson also sells the Stylus Color 600 for \$299 (street). Either way, the Stylus Color 800 can easily make your future bright and colorful. —D. D. Turner

Cat's-eye view

We printed a picture of Whiskers at three different resolutions and on two different types of paper. For comparison, we also printed the photo on a \$3,500 Tektronix Phaser 350 color laser printer.

Original scan



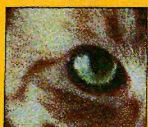
At 360 dpi on plain paper, you can see speckling in what should be pure colors and also some banding from the printhead. Time to print: 1 minute, 35 seconds.



At 720 dpi on plain paper, the speckling is mostly gone, the colors are truer, and the banding is gone. Time to print: 2 minutes, 16 seconds.



On coated paper, 1,440 dpi gives almost perfect photographic reproduction. Time to print: 4 minutes, 26 seconds.



High-end, expensive color laser printers (Tektronix) produce better images (notice the darker hues), but not by much.

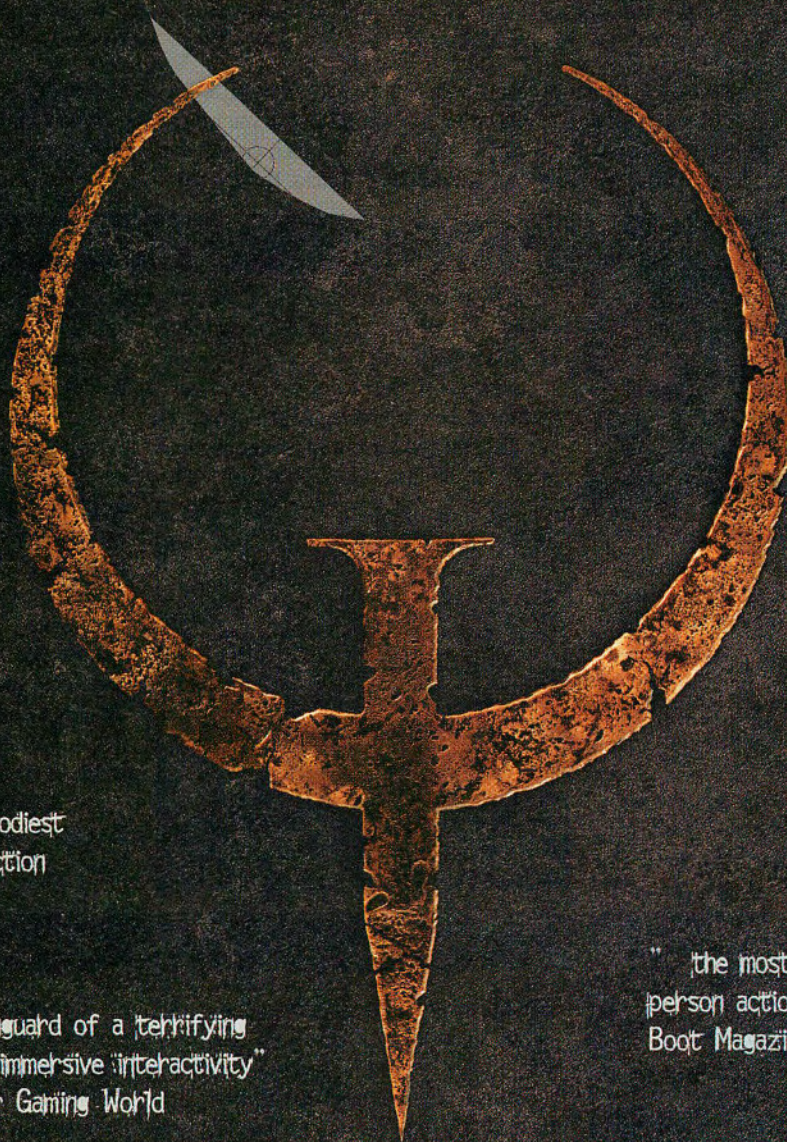


GOOD NEWS: Superb output quality. Good price. Fast. Ethernet and PostScript options.

BAD NEWS: Ethernet card and PostScript more than double the printer's price. Noisy.

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Computer Gaming World

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Boot Magazine



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cd-roms

LEONARDO DA VINCI ■ FDR ■ HISTORY OF THE TORONTO MAPLE LEAFS ■ THE ULTIMATE HUMAN BODY 2.0 ■ CARRIER: FORTRESS AT SEA

Anyone who's ever bought a CD-ROM has probably wondered if they'd be smarter to just channel surf over to PBS or buy a book. If this dilemma sounds familiar, relax, three of this month's titles take the indecision out of your hands. Corbis spotlights Leonardo da Vinci

and former U.S. President Franklin Delano Roosevelt in two new history discs that you won't feel bad about buying. ReadySoft's lifeless hockey title, however, creates more regrets than buying season tickets to the Almighty Ducks. For our reviews of these titles and more, keep reading. —Joe Mahr

Leonardo da Vinci

COMPANY: Corbis

CONTACT: 800-246-2065,

<http://www.corbis.com>

PRICE: \$30 to 35 (street)

REQUIREMENTS: 2X CD-ROM drive,

System 7.1 or later, 68030 or faster, 8MB of RAM
(12MB for Power Macs)

As innovative as the artist himself, Leonardo da Vinci breaks new ground in bringing art to the masses. Not only does the disc show off da Vinci's complex and spectacular designs and scientific theories, but it takes his world renowned, scrawling, 72-page journal and makes it easier to read than a John Grisham novel.

Go out on a limb with the disc's nifty tree-like interface for demos of his scientific principles, even those that weren't quite on the

mark. Or if you're saving the best for last, take a peek at da Vinci's world-famous diary, The Codex Leicester.

Untranslated, the Codex can make for a tough read: Leonardo did most of his scribbling in Italian, right-to-left and backward, the latter two so that his ideas would not be easily stolen.

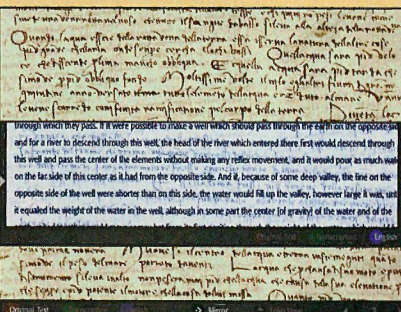
To make the Codex readable, but still authentic, discmakers categorized the Codex by subject and provided a new tool called a Codescope. Readers simply pass it over a section of text to see it translated into perfect, left-to-right English or transcribed Italian. An invention so amazing, da Vinci would have been proud.

The Last Words:

Mark: It's very cool to be able to actually read the entire text of one of the master's notebooks, and cooler still to compare against the original manuscript via the patented Codescope.

Judy: I could spend hours climbing that tree—and, in fact, got wonderfully lost among its branches.

Joe: If Leonardo were here, I'm sure he'd say just what I did after seeing the disc: May I borrow \$35?



CORBIS CRACKS open the Codex for public viewing with the latest in spy technology.



FIND
DEMOS OF
Leonardo da
Vinci and
FDR on
The Disc.

FDR

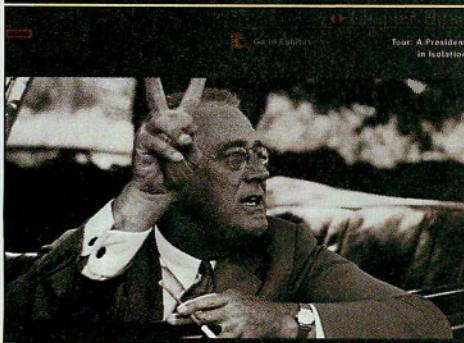
COMPANY: Corbis

CONTACT: 800-246-2065,

<http://www.corbis.com>

PRICE: \$40 (street)

REQUIREMENTS: 2X CD-ROM drive,

System 7.1 or later, 68030 or faster, 8MB of RAM
(12MB for Power Macs)

FOUR-STAR DISC details the only four-term president.

Franklin Roosevelt married his cousin, smoked two packs a day, and faked using his legs. He also successfully led the United States through the worst war in world history. Jump into any of these moments via five video tours, complete with narration from experts, and plenty of photos. At the end of each video, explore a page of enlightening exhibits, such as a White House usher's diary.

In a refreshing change, nobody's trying to rewrite history here, maybe because the facts alone are intriguing enough. Roosevelt reopened the banks, started the welfare society and won an unprecedented four terms. He also had a mistress, which didn't sit too kindly with Eleanor. She stuck with him, with the deal that he cut her enough slack to be a vocal First Lady. Also to note: FDR's mother threatened to cut off the family cash lifeline if he got a divorce,

so...hey politics is an expensive business.

There are also plenty of links, almost too many. Perusing an exhibit on FDR's polio can end at a tour of his childhood bedroom, with no clear path to getting back, or any clue as to what you were doing there in the first place.

The Last Words:

Mark: The navigation and design are ingenious and elegant, clearly the work of master designers, but the organization of content strikes me as poorly considered.

Judy: I'm a die-hard history nerd. I loved the disc: the speeches, radio broadcasts, FDR's politics, American life, and a historical point of reference for everything.

Joe: Sure, Corbis did a heck of a disc on the chatty FDR. For the real challenge, let's see one on Calvin "Silent Cal" Coolidge.

The Complete History of the Toronto Maple Leafs

COMPANY: ReadySoft
CONTACT: 888-438-2556,
<http://www.readyssoft.com>
PRICE: \$39.99 (SRP)
REQUIREMENTS: 2X CD-ROM drive,
System 7.0 or later, 68030 or faster, 8MB of RAM



ently designed by the same people who gave us the two-line-pass rule and community urinals. Basically, you drag the cursor across the screen while a ball in the corner rolls around until you reach the selection you want. Try getting anywhere beyond two

choices before your cursor hits the end of the screen and you're stuck.

But, not everything felt like a puck in the privates. The disc offers a decent panoramic tour of the arena, from the locker room to the ice. And there *are* plenty of stats, the lifeblood of many a fan. Still, at \$40 a shot, it's just not worth it.

The Last Words:

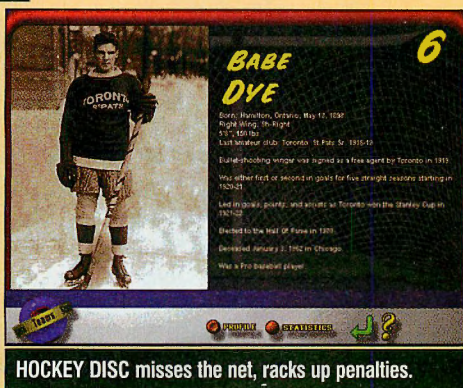
Mark: I'm positive that any paper publication would have better production values and easier navigation than this amateurish knockoff, and hopefully it would convey more fannish enthusiasm.

Judy: All in all, ReadySoft pucked up big time.

Joe: This is Pee-Wee hockey quality for pro-hockey prices.

Hockey fans expecting this disc to come alive with high-sticking, helmets-on-the-ice, fist-flying action will be disappointed to find the equivalent of warm beer and cold nachos. A dull collection of stats, rosters, short player profiles, a handful of movies, and, of course, a trivia game make this disc more boring to watch than a chess match in overtime.

To make matters worse, you have to scrape through an interface appar-



HOCKEY DISC misses the net, racks up penalties.

The Ultimate Human Body 2.0

COMPANY: DK Multimedia
CONTACT: 800-DKMM-575,
<http://www.dk.com>
PRICE: \$39.95 (street)
REQUIREMENTS: 2X CD-ROM drive,
System 7.0 or later, 68040 or faster, 8MB of RAM



system twirl around. OK, that's pretty cool for a few minutes. Now click on the brain. Hey, there's a hyperlink for a movie, maybe something detailing the hub of complex reasoning, right? Nope, just more twirling.

When there are words spoken aloud, it's usually only to pronounce the names of body parts. That's handy for "Duodenum" and "Jejunum," but it's a little silly for "bone." Is there a doctor in the house? We're beginning to lose our patience.

The Last Words:

Mark: This even-more-ultimate update doesn't add a whole lot to the standard DK Multimedia interactive-textbook approach.

Judy: The disc has detailed illustrations and information on everything from your lymph nodes to your toes, but getting to and fro isn't easy and the interface tools and controls change with each panel. Where's the link to aspirin? I have a headache.

Joe: I found the pocket booklet that came with the CD, listed as a \$6 value, to be much more informative than the disc. Hmmm.



TWIRLING BRAINS fail to make modern medical history.

Attention wannabe doctors: Don your scrubs, grab a scalpel, and read. And read. And read. The latest "ultimate" still has too many words, and too few displays. Worst still, it doesn't even hyperlink to most related sections, leaving you thinking it's not only boring, but superficial. Call the nurse.

Take the 3D models, the latest installment that's supposed to wow users. You can make a skeleton, major organs, and the circulatory

Carrier: Fortress at Sea

COMPANY: Discovery Channel
CONTACT: 800-938-0333,
<http://www.discovery.com>
PRICE: \$40 (street)
REQUIREMENTS: 2X CD-ROM
drive, System 7.1 or later, 68030 or faster,
8MB of RAM



But this is Navy life, recruit, chin up! Keep exploring and you'll find a dandy Quicktime VR tour of one of the Navy's biggest, baddest aircraft carriers, the USS Carl S. Vinson. For a fascinating look at life on deck you can also tune into about 45

minutes of revealing clips that detail the jobs and lives of those onboard, from the guys who love waving from the planes to the men who miss their mommies.

The Last Words:

Mark: "The closest you can get to a real aircraft carrier without enlisting," claims the box...too bad they didn't have this five years ago, or my friend James could have saved himself a lot of trouble.

Judy: Maybe the folks at Discovery Channel will either leave those aircraft carrier guys alone, or do them justice and put the good stuff into an invested documentary.

Joe: I wonder just how many pushups the bemoaning seamen had to do after the Navy higher-ups saw this disc.

They-want-you. They-want-you. They-want-you-as-a-new-recruit. But at least the Navy gave the Discovery Channel great access to a really big ship, so civilians like us can sort out life in the service.

Just like Navy life, disc duty can be difficult. You'll need boot-camp discipline to wade through the intro, history clips, and military fact sheets on the big boats. And an F-14 landing game that comes with the CD is mere second-generation Pong technology.



EVERYTHING THE VILLAGE PEOPLE didn't have time to sing or simply didn't dare to share.



Kidz Stuff

reviews



TAKE A PEEK
at Bill Nuy the
Science Guy:
Stop the Rock!
on The Disc.

Brisbane Elementary Mac addicts give you the straight scoop on children's software.

JumpStart Adventures 4th Grade: Haunted Island



COMPANY: Knowledge Adventure

CONTACT: 818-246-4400, <http://www.adventure.com>

PRICE: \$40 (street)

REQUIREMENTS: 2X CD-ROM drive, System 7.1 or later, 68040 or faster, 8MB of RAM

The day you were out sick, an evil substitute teacher turned 13 of your classmates into hideous monsters and locked them away in her creepy castle on the hill. After a brief consultation with Madame Pomreeda, the local circus-wagon psychic, you're left on your own to wander through an eery forest where you have to use your wits to

solve a slew of puzzles that test your knowledge on everything from math to music. Do well and you'll win the keys and objects that will release your friends and reverse the evil teacher's spell.

GOOD FOR GRADES: 2 to 4

LIKES: "It's fun to play, and the bat on the game is so cute." ■Tiffany

"I liked the whole program. I really liked the graphics." ■Alfonso

DISLIKES: "You go around in circles, not doing anything."

■Hilary

"When you go in the program, it takes a long time to go into the game; some of the questions are too hard." ■Daniel

SOUND ADVICE: "Make there be more activities." ■Tiffany

FINAL REPORT: Spooky rescue mission makes learning less scary.



CREEPY QUEST brings out the little monster in all of us to score good grades.

Meet the players...



TRACI NOWAKOWSKI, Age 10, Grade 5

EXPERTISE: Soccer

PICK OF THE MONTH: Trivia Munchers Deluxe



TIFFANY TAYLOR, Age 10, Grade 5

EXPERTISE: Basketball

PICK OF THE MONTH: Bill Nuy the Science Guy: Stop the Rock!



AMANDA OLSON, Age 10, Grade 5

EXPERTISE: Art

PICK OF THE MONTH: Invention Studio



DANIEL LAM, Age 10, Grade 5

EXPERTISE: Math

PICK OF THE MONTH: Invention Studio



BRIAN SCHROEDER, Age 10, Grade 5

EXPERTISE: Basketball

PICK OF THE MONTH: Invention Studio



HILARY WALDO, Age 10, Grade 5

EXPERTISE: Soccer

PICK OF THE MONTH: Invention Studio



ALFONSO PICAZO, Age 11, Grade 5

EXPERTISE: Sports

PICK OF THE MONTH: Invention Studio



JUSTIN PEREZ, Age 9, Grade 5

EXPERTISE: Drawing

PICK OF THE MONTH: Invention Studio

The Adventures of Batman & Robin Activity Center



COMPANY: Gryphon Software

CONTACT: 619-536-8815, <http://www.gryphonsw.com>

PRICE: \$35 (street)

REQUIREMENTS: 2X CD-ROM drive, System 7.1 or later, 68030 or faster, 8MB of RAM

Batman's 11 worst enemies, including such criminals as the Joker, Poison Ivy, and Mr. Freeze, have escaped Arkham Asylum. You must help Batman and Robin capture the villains by playing games to collect clues. Each of the 11 activities, which have you scouring sewers, deciphering codes, and unscrambling images, can be individually set to three levels of difficulty, making these criminals tough crooks to catch, even with the help of the dynamic duo.



GAS UP THE BATMOBILE, Gotham City needs you.

GOOD FOR GRADES: 2 to 6

LIKES: "The games were interesting, and they made you not want to give up." ■Traci

"I liked how you get to drive around in a Batman car called a Batmobile." ■Tiffany

DISLIKES: "It was not very realistic, like when you captured Two-Face and he would still appear in the jewelry store." ■Justin

"Some of the things that you play are too easy, and you can't do things like shoot at the computer with something." ■Daniel

SOUND ADVICE: "I think there should be more activities." ■Brian

FINAL REPORT: Solving crimes is a reward, but caped crusaders are a plus.



Trivia Munchers Deluxe

COMPANY: The Learning Company

CONTACT: 800-227-5609, <http://www.learningco.com>

PRICE: \$20 (street)

REQUIREMENTS: 2X CD-ROM drive, System 7.1 or later, 68040 or faster, 8MB of RAM



Kids who think they know it all will find their reputations on the line as they dodge Troggles and devour tasty trivia on topics ranging from math to cars. Players pick a subject such as "famous people" and then race around the board, munching up every famous name they can find. Watch out for the creepy Troggles that try to get in your way as you suck down 3,200 trivia samples in 74 categories. Five levels of difficulty will keep you munching until you really do know it all.

GOOD FOR GRADES: 3 to 6

LIKES: "I liked the music on this game, and the graphics, and it's also kind of a challenge." ■Brian

"It was fun and you learned a lot of things, like who famous people are, and you learned what the planets are."

■Traci

DISLIKES: "I do not like when you get to one part of the game and it plays a show. That happened to me about seven times, but I just stopped it from playing." ■Amanda

"It was kind of hard, and it would be better if it had more subjects." ■Tiffany

SOUND ADVICE: "Make it so you could kill the Troggles." ■Daniel

FINAL REPORT: Trivia game draws only trivial gripes.



MANIC MUNCHERS WITH A TASTE for trivia eat their words or get eaten.

Invention Studio

COMPANY: Discovery Channel

CONTACT: 800-678-3343, <http://multimedia.discovery.com>

PRICE: \$34.95 (street)

REQUIREMENTS: 2X CD-ROM drive, System 7.0 or later, 68030 or faster, 12MB of RAM



Kids with bright ideas will be able to turn them into virtual reality with Invention Studio, a futuristic lab where young inventors learn the steps to creating their own patented machines. Doc Howard, a dull lab guide who tends to talk too much, shows kids how to brainstorm and blueprint their plans before taking the kids to the laboratory where they each bring their brainchild to life. Cautious inventors can test their creations at the virtual testing ground before heading to the patent office to claim fame for their ideas.

GOOD FOR GRADES: 5 and up

LIKES: "Making cars and getting to drive them. Making robots and getting to test them. Making toys and getting to play with them."

■Traci

"I liked this game because when you make a plane or a car, you can make it look very cool." ■Brian

DISLIKES: "I did not like that the man talked too long and didn't explain much." ■Amanda

"When you make your own car or plane, it doesn't let you drive

it, and some of the films are pretty boring." ■Daniel

SOUND ADVICE:

"Maybe have levels so the harder one could be more detailed and the easier one could just have wheels and hoods."

■Hilary

FINAL REPORT: From premise to patent, Invention Studio finally lets kids have their own way.



WHY RENT A PLANE when you can build your own?

Bill Nuy the Science Guy: Stop the Rock!

COMPANY: Pacific Interactive

CONTACT: 800-688-1520, <http://www.pacint.com>

PRICE: \$40 (street)

REQUIREMENTS: 2X CD-ROM drive, System 7.1 or later, 68040 or faster, 8MB of RAM (16MB for Power Macintosh)



A deadly meteoroid is headed straight toward Earth and only MAAX, a supercomputer with an attitude to match, can stop it. The catch? The mean-spirited machine has a mind of its own and refuses to save the planet unless you, with the help of Bill Nye the Science Guy and his kooky researchers, can solve its seven science riddles. All the Nye Lab resources, including the Nyesmograph, the Weatherator, and the Van de Graaf generator, are at your disposal—if only you can find the elevator and pick up your Nyeom 3,000, which will keep you in contact with Bill and the other researchers.

GOOD FOR GRADES: 6 and up

LIKES: "The things I really liked were getting to run machines and exploring all the different rooms." ■Amanda

"You get to do a lot of things like you are really in the program, you get to go to a meeting with Bill and the other people." ■Daniel

DISLIKES: "The directions on this game are hard to follow, like when Bill gave me directions to the elevator—I never found it."

■Brian

"I did not like this game, because it was kind of boring and there weren't very many games to play." ■Justin

SOUND ADVICE: "Each time you click on something, it should react, not just sit there dull as a doorknob." ■Hilary

FINAL REPORT: Science rules, but no one likes getting stuck at the elevator with nowhere else to go.



TEAM UP WITH THE TV SCIENTIST to solve science riddles and save the earth.

Curious George: ABC Adventure

COMPANY: Houghton Mifflin Interactive

CONTACT: 800-829-7962, <http://www.hminet.com>

PRICE: \$39.95 (street)

REQUIREMENTS: 2X CD-ROM drive, System 7.1 or later, 68040 or faster, 8MB of RAM (12MB for Power Macs)



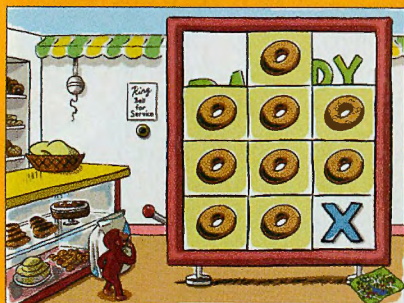
Some storybook heroes take well to the small screen, but others, such as Curious George, just don't have the vibrant personality it takes to pull off a kid's CD-ROM. The monkey will always be cute on paper, but when brought to CD life, he's downright dull as he silently fishes for lettered blocks, skywrites letters, or wanders the zoo playing a version of I Spy that's a yawn a minute, even for preschoolers.

GOOD FOR GRADES: K to 1

LIKES: "It helps kids learn the alphabet in a fun way." ■Daniel

"This program would be easy for little kids to understand." ■Hilary

DISLIKES: "It was sort of confusing at times, and there's also not that many places to go." ■Brian



CURIOS GEORGE MAKES learning letters lame.

"When they talk to you, you really don't get a chance to play." ■Traci

SOUND ADVICE: "I would improve the amount of instructions they give you." ■Amanda

FINAL REPORT: Curious George doesn't monkey around when it comes to learning letters, but he should.

Arthur's Reading Race

COMPANY: Living Books

CONTACT: 800-397-4240, <http://www.livingbooks.com>

PRICE: \$29.95 (street)

REQUIREMENTS: 2X CD-ROM drive, System 7.0 or later, 68030 or faster, 8MB of RAM



Sibling rivalry rears its ugly head as Arthur the aardvark bets his sister, D. W., an ice-cream cone that she can't read as well as he can. To prove her mettle and win the bet, D. W. must read 10 words on the way to the ice-cream store. Kids click around for animated and musical surprises throughout the journey and practice writing in an activity that lets them drag pictures onto lined paper to see how the words are spelled. Gamers can head right to the reading race where they'll match pictures to words as they work their way toward ice-cream.

GOOD FOR GRADES: K to 2

LIKES: "If you walk across the street in the race when it says don't walk, you move back." ■Hilary

"The board game was fun, and you get to pick your ice cream to eat, like banana slug or frog chip or pizza chip." ■Daniel

DISLIKES: "It took a while to get to the next place, and there wasn't very much to do." ■Justin

"You can't pick a word for D. W. to read in the city, like 'parking,' and Arthur picks the words for D. W. to read." ■Daniel

SOUND ADVICE: "Maybe make a spelling or math race for little kids." ■Hilary

FINAL REPORT: Ice cream always makes a tasty incentive.



WAGERING SIBS RUN a good reading race.

Children's Songbook

COMPANY: Voyager

CONTACT: 800-446-2001, <http://www.voyagerco.com>

PRICE: \$29.95 (SRP)

REQUIREMENTS: 2X CD-ROM drive, System 7 or later, 33MHz 68040 or faster, 8MB of RAM



Voyager takes the same old songs from countries around the world and translates them, sings them aloud in their native language, and spells them out note for note. Kids circle the globe and click on a country to hear songs such as Russia's "Katiusha," Australia's "Kookaburra," and the all-American "She'll Be Comin' 'Round the Mountain." Short, animated movies bring the songs to life, and games commit them to memory by forcing kids to put out-of-sync song snippets back into their original order.

GOOD FOR GRADES: K to 5

LIKES: "The songs are cool, and it is fun trying to sing in a different language." ■Hilary

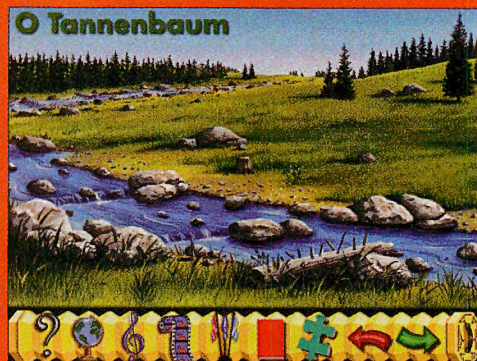
"The best thing is when it tells information about the country and it shows you pictures." ■Tiffany

DISLIKES: "I did not like the people that sang the songs." ■Alfonso

"It didn't have reggae music to listen to." ■Brian

SOUND ADVICE: "Add some better graphics and more songs." ■Daniel

FINAL REPORT: Songbook tempts the world to sing its praises.



SIMPLE SONGBOOK translates world culture into music.

What the Adults Thought

Given that we did not want to mix church and state by having public school children review Bible stories, it fell to me, the preacher's kid, to tell you about Little Ark Interactive's Daniel in the Lions' Den and The Story of Creation (each title \$19.95 SRP, 800-776-4724). If all you're looking for are interactive books for your 3- to 7-year-olds, you'll find these titles charming, but if you're looking for a real Bible education, keep looking.

After going before a multid denominational, ecumenical panel, both stories are so watered down you can see right through them. In The Story of Creation, for instance, there's no Garden of Eden, no apple, no Adam, no Eve, no snake, no paradise lost: just a bunch of singing and dancing. The cute animations have nothing to do with the story of creation.

Moving on to Daniel in the Lions' Den, you'd expect Bible stories to teach the difference between good and evil. Wise, beloved Daniel is thrown into the lions' den by three "not-so-wise" men. How do you know that they're not so wise? Well, one is fat, another is hunchbacked, and the last has darker skin than the others; the three of them together act like the Three Stooges. Pardon me if I don't think teaching stereotypes to children is Good Work. If you want your children to learn morals, you're better off taking them to Sunday school. —Kathy Tafel


THE SEQUEL TO *Heroes of Might and Magic*,™
THE 1995 STRATEGY GAME OF THE YEAR – *Computer Gaming World*





TAKE A
This long-awaited sequel is a feature-by-feature enhancement of
everything that made the original *Heroes* an all-time Macintosh
strategy classic. Scores of new hero
and monster types, alliance formation for team play, enlarged
combat maps, increased multi-player options, and a flexible
“World Builder” module are
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be a prized addition to your CD-ROM treasure trove.

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THRONE

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Computer Player



Computer Gaming World



NEW WORLD COMPUTING®



how to use MacsBug

And you thought the Mac didn't have a command-line interface.



FIND MANY
debugging
software
products
on The Disc.

Imagine a piece of software that would let you play audio CDs, recover work from fatal System crashes, cheat during gameplay, use your Mac's screen as a strobe light, and multiply 27 by 396. What is this Swiss army knife of a program? MacsBug.

In an ideal world, developers would create software that never had any problems—no crashes, no weird behavior, just bytes and bytes of perfection. In the real world, however, all software has problems, or bugs. Developers use debuggers to eradicate as much of the infestation as possible. There are two kinds of debuggers: source-level and low-level. A source-level debugger works on the source code of a program before it has been compiled.

Unfortunately, in the event of a System crash, a source-level debugger will go down along with the System (another good reason to want protected memory as an OS feature).

Enter low-level debuggers, such as MacsBug, which still function during a System crash. MacsBug is a tool developed by Apple that's available free to developers. MacsBug sits quietly in its own memory until it is invoked, either through a user interrupt or a System crash. When MacsBug is invoked, it displays the state of the Mac on its screen in machine assembly, the native language of a Mac's processor. Although developers use MacsBug for the good of Mankind, we'll teach you how to use it for fun and profit. —Stefan Anthony

MacsBug Revealed

Fortunately, enough of the charted world of MacsBug is simple enough for us mere mortals to learn. Although MacsBug's startling black-and-white debugging screen is by no means an intuitive graphical interface, it is very simple.

THE OUTPUT REGION is where MacsBug responds to what you type in the command line. Just about anything can flow through the output region, from MacsBug's help documentation to secret messages in some hardware and software that would be otherwise inaccessible. Fortunately, the first line of the output region always shows the reason why the computer entered MacsBug. So in the event of a crash, MacsBug is useful in determining the type of error that occurred.

STACK (a programming thing).

THE STATUS REGION is where information about the application and memory environment is displayed. It reports such varied information as what application was at the front at the time MacsBug was invoked, if virtual memory and 32-bit addressing are on, and what the application's relationship to the CPU is.

THE FRONT-MOST APPLICATION when MacsBug is invoked shows up under CurAppName. (Get it? Current Application Name.)

THE AREA BELOW CurAppName shows whether 32-bit addressing is on and whether you're using virtual memory (VM) or real memory (RM).

REGISTERS (another programming thing).

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5C 00010000
.....
50 00000000
54 000004EB
.....
58 0000027F
5C 20980035
.....5
70 00000054
74 0173003E
...T.S>
78 04EBDA75
7C 04EBDA8E
...S.L.g.U
80 00000000
84 000004EB
.....
88 00010000
8C 00010000
... (S..S

```

```

CurAppName
Finder
32-bit VM
SR Smxncvc 0

```

```

D0 04EC0062
D1 00000053
D2 FFFF8100
D3 00010000
D4 00010000
D5 04EBDA75
D6 04EBDA8E
D7 00000001

```

```

A0 04EBDA75
A1 04EBDA8E
A2 00000000
A3 027F2098
A4 027F2E58
A5 04EC04F0
A6 04EBDA8E
A7 04EBDA58

```

```

_R09D
+0084 40843714 *$0700, SR
+0086 40843705 **$0400
+0088 40843718 $0004(R7), <10, R71>

```

```

; R973 | R973
; 401F | 401F
; 04EBDA8E | 66B8

```

THE PC REGION. First off, there is *not* a PC in your Mac, much less a region full of them. PC in this case stands for program counter. When dropping (or crashing) into MacsBug, what's shown here is the very next "instruction" that the front application is performing. For example, if you see "_DrawLine" displayed in the PC region, the application is telling QuickDraw to draw something on the screen. When the PC region displays "No procedure name," your Mac is truly idle, with no instructions taking place. When troubleshooting the cause of crashes, the PC region is at first the most helpful source of information about the crash. MacsBug can diagnose most types of crashes and relay that information to you by printing an error number or expression.

THE COMMAND LINE is where you communicate with MacsBug: a blank line and a blinking cursor.

MacsBug

This file provides programmers with information proving that it really was a hardware problem...



MacsBug

WE INCLUDED VERSION 6.5.3 of MacsBug on The Disc. If you upgraded to System 7.6, you'll need to get version 6.5.4 from Apple's developer site at http://ftp.apple.com/devworld/Tool_Chest/Testing_-_Debugging/Debuggers_-_dcmds. Install MacsBug by dropping it into your System Folder at the root level. Reading its balloon help message gives insight into engineer humor. Once installed, you'll see a "Debugger Installed" message on the Welcome to Macintosh (or Mac OS, if you have System 7.6) screen at startup. To invoke or "drop into" MacsBug, press Command-power (or do something that crashes your Mac). If you get a screen that looks like this,

>

you'll have to restart by pressing Command-Control-power. This is a minidebugger, and you can't get anything useful from it. Make sure MacsBug is in the top level of your System Folder. If you get a blank screen when you press Command-power, that means you upgraded to System 7.6 and are using MacsBug 6.5.3. Although there isn't a pretty white screen, typing G-Return will get you back to the program. Be sure to download the latest version of MacsBug, available at the above site.

When to Drop In to MacsBug

If your machine has just hung, drop into MacsBug and see what application is causing trouble by looking in the middle of the status region. If it's a program such as Netscape Navigator or the Desktop Printing software that's known to hog the processor and freeze your Mac momentarily, exit MacsBug and wait out the interruption for a few seconds. This is better than "faking" a Force Quit with Command-Option-Escape, because MacsBug can cleanly interrupt processes and gracefully let them continue.

Use MacsBug as a boss key; if someone walks into eyesight of your screen whom you'd rather not have see what you're doing (i.e., your boss), drop into MacsBug and pretend you're hard at work (or, if your boss is smart, that your Mac just crashed).

Don't remain in MacsBug for more than a minute or two if you're downloading a file or if you're logged onto a file server via AppleShare. Because MacsBug locks up your computer temporarily while in the debugger, remote machines may think that your Mac just dropped off the face of the planet and drop their connection.

Commands to Conquer

After properly installing MacsBug, you can enter any of the following commands on the command line (hit Return after each command to execute it). Don't worry about capitalization when entering these commands. You can find out more about each of these commands in MacsBug's documentation on The Disc. If you tire of MacsBug, simply drag it out of the System Folder.

G — Returns your Mac to normal operating procedures. It should always return when you've invoked MacsBug manually (by pressing Command-power) but not when you crash. If you've ever spilled soda into your keyboard, sometimes your Mac will get an anomalous Command-power signal from the crossed wires. This makes your Mac drop into MacsBug by itself.* Just type G to get back to work.

ES — Exit to Shell. Equivalent to the Finder's Force Quit command.

EA — Exit to Application. Quits and restarts last application running when MacsBug was invoked.

RS — Restart. Used by MacsBug after a system crash. Unmounts all volumes and restarts.

RB — Reboot. Used by MacsBug after a system crash. Unmounts startup volume and restarts.

LOG — Logs the debugging session to file.

ERROR — Looks up error codes.

F — Finds a string in active memory.

DM — Display Memory. Shows memory size.

SWAP — Controls how the monitor switches between the debugger screen and the front-most application.

SM — Set Memory. Manipulates memory size.

*You can tell that it's not a crash, because "NMI" (non-maskable interrupt) appears in the PC region, just as it does at any other time you press Command-power.

More Cool Shortcuts:

Return — Repeats the last command used.

Command-B — Cycles through previously used commands in MacsBug's "history buffer."

Command-V — Copies the last command to MacsBug's special clipboard.

How — If you've been fiddling around in MacsBug for some time and have forgotten whether you deliberately entered MacsBug or crashed in, type "how" and MacsBug will tell you how it was invoked.

Command-left (or -right) arrow — Moves the cursor to the far left (or far right) of the command line.

Option-left (or -right) arrow — Skips the cursor one word to the left (or right).

Command-Delete — Erases the entire line, should a command be typed but not yet executed.

Command-G — Exits MacsBug (you may find it easier to type Command-G with one hand than to type G and Return).

how to



Clip this, laminate it, and tape it to your Mac!

8 Things to Do With MacsBug

1

Save From a Crash

The simplest thing MacsBug can do for you is give the opportunity to save unsaved work and restart in the event of a crash. When an application freezes or hangs, enter MacsBug (if your machine doesn't do so of its own volition) and type **es**, the Exit to Shell command. If all goes well, you should find yourself in the Finder, where you can save any work in other applications. You will need to immediately restart to clear out corrupted memory. Note: By definition, Exit to Shell won't work if the status region reports that the Finder was the front application at the time of the crash.

2

Look Up Errors

MacsBug is a good conversation piece for its error-lookup functions as well. If you're itching to know what an error of Type 33 is, drop into MacsBug and type:

```
error #33
```

MacsBug will respond by telling you that Type 33 errors are when

ZcbFree has gone negative

Whatever that means, we don't know, but it sounds like something Doug Ross would say in the ER.

3

Do Multiplication

Tired of reaching for the calculator desk accessory? Use MacsBug. To calculate 31 multiplied by 17, just drop into MacsBug and type:

```
#31 * #17
```

MacsBug will reply:

```
#31*#17 = $0000020F #527  
#527 '....'
```

The answer MacsBug returns is 527, which is correct (this is why we call computers computers). Also hidden in MacsBug's response is 020F, which is the hexadecimal representation of 527. (See "A Hex on Your House," Jan/97, p42, to get the lowdown on hex code.)

4

Find Lost Bits

So you just wrote a long, three-page e-mail message to your aunt Nelda in Boise, Idaho, about the life expectancy of the African wildebeest. Bam! Your Mac crashes, and you feel like throwing your monitor out the window. But wait! Even after restarting after a System crash, everything that you were just working on is still in the memory—that's how you can boot from a System Folder on a RAM disk.

Here's how to use MacsBug's Find command to search your memory. This technique is best used on work that was text-based, not an image or other media type.

STEP 1

First, start a log of your session by typing **log** and then a name, such as AuntNelda. This creates a text file on your desktop named, curiously enough, AuntNelda. Don't use a colon in the log name.

STEP 3

Now type **dm** and then the first address you wrote down. If you've found your lost e-mail, you'll start to see fragments of your message. If not, display the memory (type **dm** and the next error) starting at the second address you wrote down.

Continue pressing Return until your entire message is written to the log.

STEP 2

On the command line, type:

```
f 0 (400 * 400 * X) "African wildebeest"
```

replacing the X above with how many megabytes of memory you have.

After completing its search, MacsBug will display something similar to this in the output region:

```
005C9861 4166 7269 6361 6E20 7769 6C64  
6572 6265 African wildebe
```

If MacsBug displays "Not found" instead, make sure you spelled wildebeest correctly, used the right capitalization, and so on.

Write down the address of the first match, which is 005C9861, and press the Return key to perform another search.

Write down the next address found by the second search. Continue searching for references, but find no more than four. Note that MacsBug will continue to show references even if they're in MacsBug's own memory. This is *not* good. You want to search the memory for your lost work, not MacsBug's search for your lost work.

STEP 4

When your entire message to Aunt Nelda has been recovered, close the log by typing **log** again and then exit MacsBug by typing **g**.

Your log will contain not only your message but the entire log session, including memory addresses and other arcane numbers. You can open the log file in a text editor and clean up your message, or you can use a utility such as RAMsalvage, by Walter Ian Kaye, to clean up the mess.

More Exterminators

Several other low-level debuggers are available for the Mac, among them ABZmon, TMON Professional, the Debugger, and Apple's Power Macintosh Debugger. Each debugger offers some features that the others don't have or don't do well, and developers sometimes use them in combination. Both ABZemon and TMON offer

semigraphical interfaces, with windows and mouse control.

Several books are available that cover debugging software, including *MacsBug Reference and Debugging Guide*, *Debugging Macintosh Software With MacsBug*, and the excellent *How to Write Macintosh Software*, all from Addison-Wesley.

5 Manipulate Memory

In some versions of Ambrosia Software's asteroids game, Maelstrom, manipulating certain values stored in memory can cause ACME supply canisters to start floating onto the screen (this is a good thing).

Start a new game and then drop into MacsBug. Type any or all of the following Set Memory commands:

```
sm (a5)-306 1
sm (a5)-308 1
sm (a5)-30a 1
sm (a5)-30c 1
sm (a5)-30e 1
```

When you exit MacsBug by typing **g**, a few canisters will be waiting for you to snatch.

At Your Command

Developers are able to extend and modify MacsBug's commands by writing special files named debugger commands, or DCMDs. These files are able to use MacsBug to do just about anything, from playing audio CDs to taking screenshots that are nearly impossible to take.

AudioCD dcmds, by Christopher Evans, can play, pause, and stop audio playback, as well as skip tracks. Pretty slick, considering that the point of MacsBug is to interrupt your Mac from doing anything. Unfortunately, the E command is a bit buggy, so don't try using it to eject your CDs, and don't try to change the sound volume, either.

Err dcmds, by Cliff Harris, expands MacsBug's list of error codes (in addition to correcting some barrassing spelling errors made by Apple engineers). Never again will you crash into the debugger with an "unknown error" message.

Grabbug, by a developer known mysteriously as Quinn the Eskimo, was written to help take screenshots of the Finder's ZoomRects in action.

6 Monitor Tricks

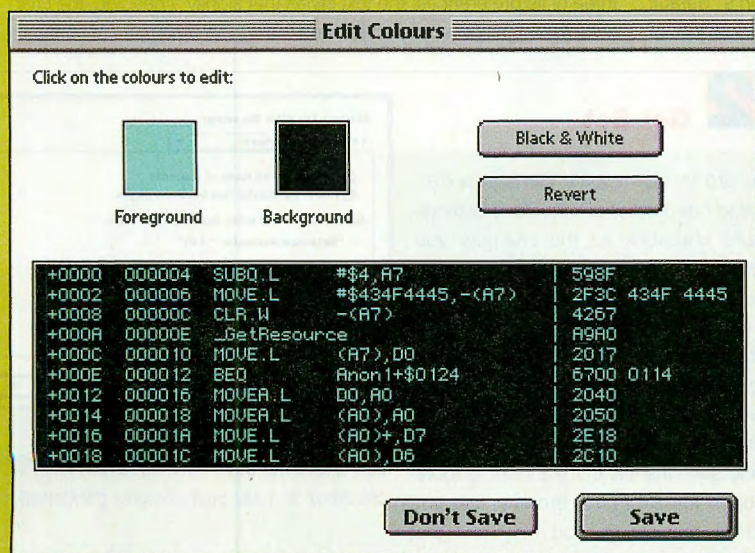
MacsBug can also turn your monitor into a party prop. Every time you drop into MacsBug, the monitor "swaps," or switches from the application screen to the debugger screen. To have the monitor swap on its own, type **swap** until MacsBug replies with "Display will be swapped after each trace or step." Then type **s 30** (the number here is the number of times you want it to swap) and watch your monitor go!

This trick gets very annoying after a while, so don't choose a number higher than 100 or so. Unless you like this sort of thing.

The swap command also can be used to display MacsBug on a second monitor. MacsBug will always be shown on the screen from which you boot (where you see the "Debugger Installed" message), so be sure to drag the happy Mac icon in your Monitors control panel to the monitor you want dedicated to the debugger. Then enter MacsBug and type **swap**. The advantage to dedicating a monitor to MacsBug is that you will always see everything going on inside your computer at the machine level.

7 Add Color!

One of the first things people say about MacsBug when introduced to it usually refers to the harsh appearance of the debugger screen. Although MacsBug will remain text-based into the foreseeable future, you can change the colors that MacsBug displays with a third-party utility named ColorMacsBug.



USE COLORMACSBUG TO EDIT the "mxbc" resource in your Debugger Prefs file (if you have one, otherwise use ColorMacsBug to edit MacsBug itself).

8 Modify MacsBug

The code you see under the instruction in the PC region is the assembly that your Mac was processing. This assembly is usually useful only to programmers who can establish high baud rates with their voice. To see more of what's going on inside your machine and have MacsBug display more than one instruction at a time in the PC region, use ResEdit to edit your Debugger Prefs file's "mxbi" resource (if you don't have a Debugger Prefs file, edit the mxbi resource within MacsBug itself). Raise the number in the "# of PC lines shown" slot from the default of four to a higher number, but remember to leave enough space for the most important section of the MacsBug display, the output region.

Speaking of the output region: Only so much text is held in MacsBug's internal buffer, so you may wish to expand MacsBug's limit by editing the mxbi resource in the Debugger Prefs file (or MacsBug's own mxbi if you don't have Debugger Prefs). Increasing the default of 10K to about 24K (24,576 bytes) will bump MacsBug's buffer size to about 12 pages of text, which should be more than enough.



how to

put up a Web page fast

Here are two ways to create a Web page in less than three minutes.

Scenario one: Your Web page displays the latest news, but you're getting mighty tired of the flood of daily e-mail that you have to open in BBEdit and mark up with HTML. Even with BBEdit's HTML tools, you have to scroll through the text and mark each heading and bulleted list, one at a time.

Scenario two: Your boss wants the company annual report up on the intranet in time for this afternoon's staff meeting. No problem—you should be able to massage the 70-page QuarkXPress document in an hour or two with Adobe PageMill or Claris Home Page, right? Whoops, what's that? The secretarial staff hasn't finished typing the corrections? You'll have only 10 minutes to prepare it?

Scenario One: Text to Web Page with Myrmidon

Myrmidon (\$50 [SRP], Terry Morse Software, 415-858-1017, <http://terrormorse.com>) is perfect for quickly converting text to HTML,

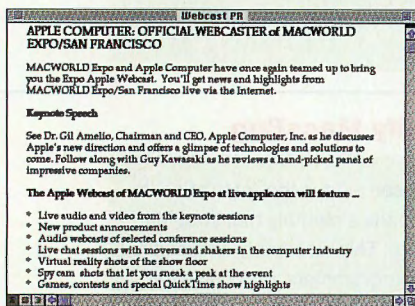
and it works directly with documents from a variety of sources, including Microsoft Word and ClarisWorks. Its big advantage over tools such as Home Page and PageMill is that it spots formatted text in the original and performs automatic conversion into HTML—that means you don't have to scroll around the document to create headings, one at a time. Right out of the box, Myrmidon's default settings do a pretty good job of

What's a Webmaster to Do?

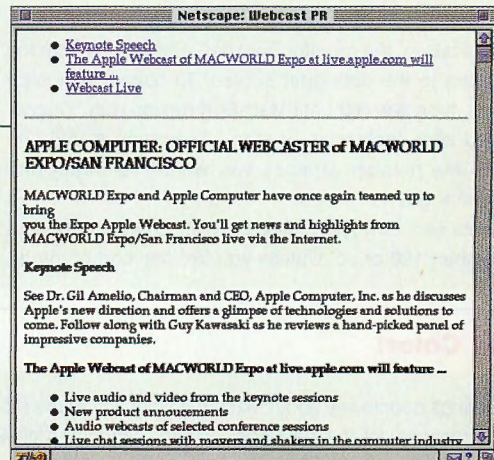
This month, we take a close look at two inexpensive tools that promise to automate the conversion of a document into HTML: Terry Morse Software's Myrmidon and Extensis' CyberPress. Once you've set a few preferences, each tool converts a document, even a huge one, into a barebones Web page in just a few minutes. These programs won't create beautiful, picture-perfect pages, but they work really fast. Of course, if you have lots of time to kill, either tool can create the foundation for a fully tricked-out page.



FIND A DEMO
of Myrmidon
on The Disc.



A SIMPLE PRESS RELEASE created in
Microsoft Word.



THE SAME
PRESS
RELEASE
after
Myrmidon's
three-minute
conversion.

imitating the look of the original page.

Myrmidon's manual is clear and simple, but let's take a look at three of its preferences: the text styles that signify a heading, the character that signifies a bulleted list, and the hyperlinked table of contents.

STEP 1 Get Ready

The confusing part of using Myrmidon is understanding that it works as a printer driver: You select Myrmidon in the Chooser, configure it in the Page Setup dialog box, and convert a document to HTML by "printing" it. Here's exactly what to do:

- Select Myrmidon as your printer driver in the Chooser and close the dialog box.
- Open the document to be converted in your favorite word processor and select Page Setup from the Edit menu.
- Click the Configure button to reach Myrmidon's preferences.

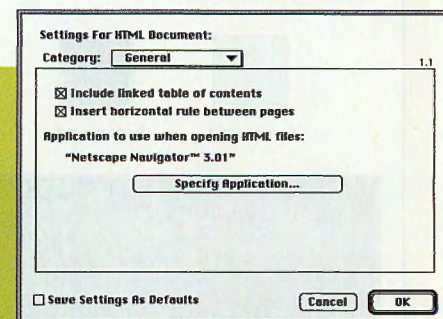
Elapsed time: 30 seconds

STEP 2 Get Set

Now you are in Myrmidon's General preferences dialog box. First check the Save Settings As Defaults checkbox so the changes you make will be permanent. Then click the Specify Application... button to tell Myrmidon which browser to use for preview.

Before going any further, convert the document to HTML and look at the results. To do this, close the General preferences dialog box and "print" the document. You'll get a Save dialog box. Save the file. In the Finder, double-click to open the file in the browser that you specified for previewing. You may find that Myrmidon's factory defaults are just fine for your purposes and you don't need to touch the preferences at all.

Elapsed time: 30 seconds



IN THE GENERAL PREFERENCES dialog box, check the Save Settings As Defaults checkbox to make your changes permanent.

STEP 3 Make Some Adjustments

Assuming you want to tweak the results a bit, here are three preferences to examine. (Remember, preferences are accessed from the Page Setup dialog box.)

1. Create a Table of Contents

By default, Myrmidon creates a hyperlinked table of contents of all headings. To turn it off, uncheck "Include linked table of contents" in the General preferences box. (The adjacent box toggles the creation of a horizontal rule at each page break.)

2. Spot the Headings

To create a heading, Myrmidon looks for text in the original document that's in some way different from the surrounding normal body text. If the original headings are larger or in a different style such as bold, Myrmidon's default settings are probably sufficient.

If the headings in your original document are exactly the same as the body text, Myrmidon won't spot them for conversion—which is exactly how the program should behave. When you open the converted document, the headings will look the same as they did in the original.

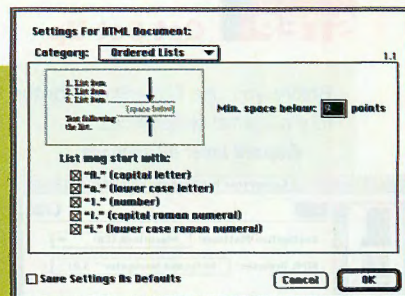
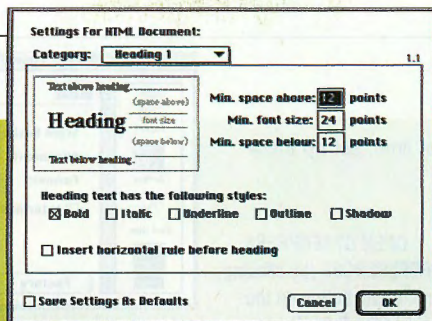
SELECT EACH OF THE COMMON HEADINGS from the pop-up menu to set the font size or style that will convert to a heading.

3. Bite the Bullets

If there's a bulleted list in your original, Myrmidon can spot the bullet character to create an HTML unordered list. If the original doesn't use the Option-8 bullet, you'll have to tell Myrmidon what bullet character was used.

Now close the Page Setup dialog box. If you always convert the same types of documents, you may only need to set Myrmidon's preferences once.

Elapsed time: 60 seconds



MYRMIDON SPOTS THE LETTERS and numbers that begin an ordered list.

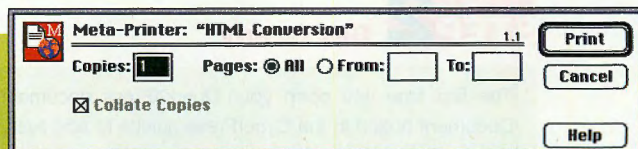
STEP 4 Go!

The only remaining step is to "print" the original document as you did earlier.

Elapsed time: 30 seconds

Total elapsed time: 2.5 minutes

Less than three minutes to turn a document into a Web page. Unfortunately, Myrmidon doesn't do a very good job with QuarkXPress pages. If that's your source, read on.



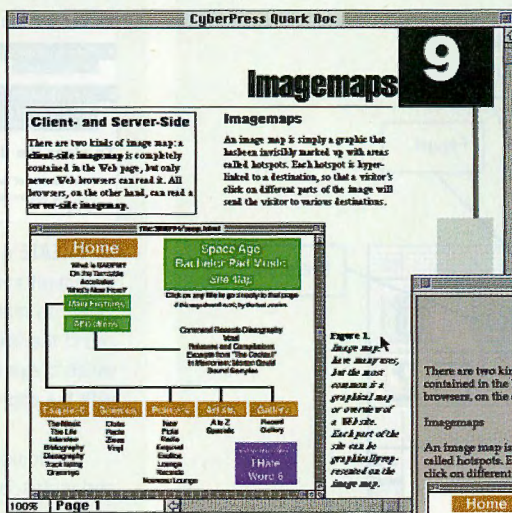
Myrmidon "prints" to HTML, not a printer.

Scenario Two: QuarkXPress to HTML

It's not easy to turn a QuarkXPress document into a Web page. HTML simply doesn't allow for flexible layout the way QuarkXPress does. The answer: CyberPress (\$150 [SRP], Extensis, 503-274-2020, <http://www.extensis.com>), which reads and converts a QuarkXPress document into rough HTML. CyberPress includes many functions to fine-tune the translation, and the application comes bundled with PageMill for final manipulation, but we're not going to discuss much tweaking. Instead, let's look at what you can accomplish in less than three minutes.

If you translate a QuarkXPress document straight into HTML without any fiddling, all the elements—every image and text box—will pretty much be strung out, top to bottom, in order. The result may not be pretty, but it's readable and it's fast.

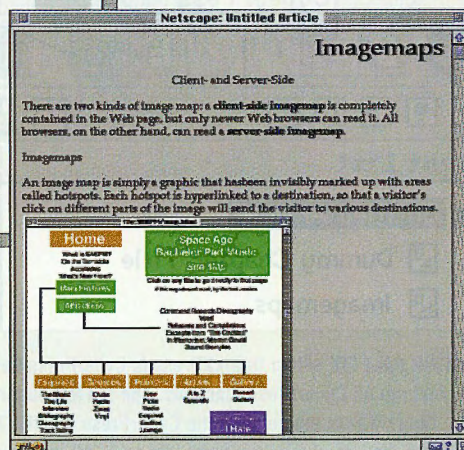
Like Myrmidon, CyberPress isn't a stand-alone application. It appears only as a palette in QuarkXPress, and every element of a QuarkXPress page appears in the palette's list. Here's a great navigation tip: Double-click any element in the CyberPress palette, and the QuarkXPress document displays the corresponding element. Click on any element in the QuarkXPress document, and the element is highlighted in the CyberPress palette.



THE ORIGINAL QuarkXPress Document.

CyberPress Hints

- Elements in the palette's list can be dragged to rearrange the order.
- The tiny buttons in the palette's second row can add items such as a horizontal rule, the date, and the time to the list.
- Click the balloon help button in the palette for a clue about what each button does.

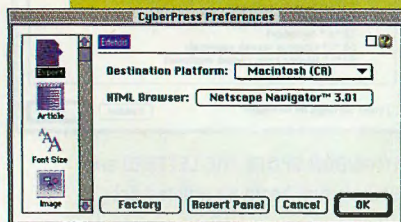


THE SAME PAGE after quick conversion by CyberPress.

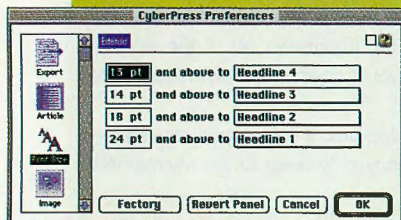
STEP 1 Get Set Up

Before you use CyberPress for the first time, set up these four essential preferences.

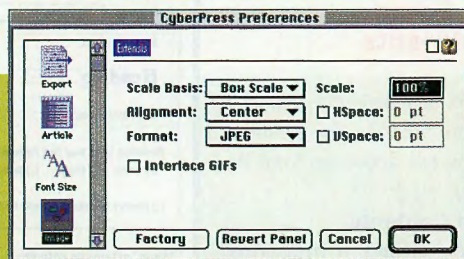
Elapsed time: 90 seconds



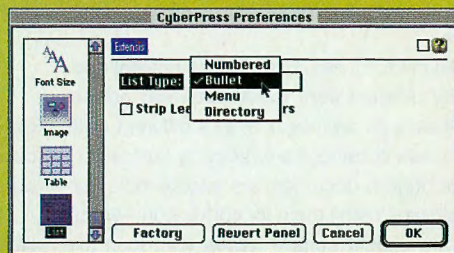
1. OPEN CYBERPRESS PREFERENCES (by clicking on the last button on the right in the CyberPress palette) and tell it which browser you use. The exported Web page can then automatically open in the browser for preview.



2. NOW TELL CYBERPRESS which font sizes to look for to create headlines. You probably have no need to play with the defaults. (On our wish list for the next version of CyberPress: the ability to spot headlines by font or style.)



default is interlaced GIF with bottom alignment. Tip: You may prefer left, right, and center alignments because they allow text to wrap, but examine the results carefully; your captions can stray from their images.



factory default is Numbered. The checkbox Strip Leading Characters removes the bullets, tabs, and so on from the original text, so they're not duplicated when HTML adds its own list characters.

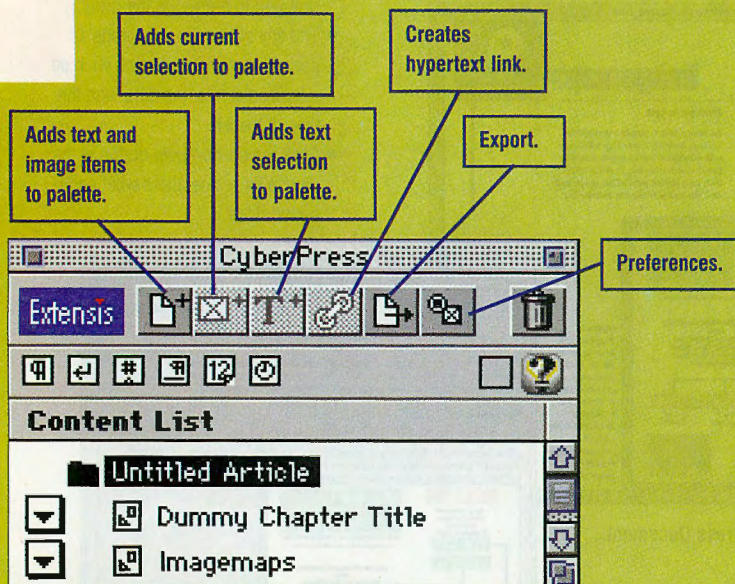
3. SET THE IMAGE PREFERENCES: format (JPEG or GIF), alignment, and GIF interlacing. The factory

4. UNLIKE MYRMIDON, CYBERPRESS DOESN'T automatically recognize a list. You must highlight the QuarkXPress text and tell CyberPress to turn it into a list. In the preferences, tell CyberPress what kind of list to create; the

STEP 2 Get Ready

The first time you open your QuarkXPress document, click the List Document button in the CyberPress palette to add every element to the palette. Then convert the page into an HTML document with the Export button. Now examine the result in your Web browser. The result is probably fairly crude, but your stopwatch says it took only 30 seconds. To refine the document, you have two choices: Open it in PageMill, or go back into CyberPress.

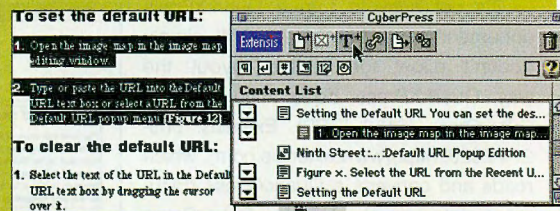
Elapsed time: 30 seconds



THIS FLOATING PALETTE within QuarkXPress is CyberPress Central, where you perform all CyberPress functions. The top left button adds all the QuarkXPress elements to the CyberPress palette. The fifth button from the left exports the page into an HTML document. And the last button on the right opens CyberPress Preferences.

STEP 3 Do More Tweaking in CyberPress

For additional refinement, select text or elements in the QuarkXPress document, and choose As Text, As Image, As Table, or As List from the item's pop-up menu in the palette. For example, to preserve a beautiful display font headline, select the headline in the CyberPress palette and choose As Image from the pop-up menu. You can also delete and move items from within the palette.



TO CREATE A LIST, select the text box in the QuarkXPress document and choose As List from the element's pop-up menu. To make a portion of the text in a text box into a list, select the text and click CyberPress' Add Text button, which creates a sub-item. Change that sub-item to a list with the pop-up menu.

In addition, you can use CyberPress to add hyperlinks and tables, but frankly, you'd do better to work in PageMill or Claris Home Page.

Elapsed time: 60 seconds

Total elapsed time: Three minutes

Joseph O. Holmes, aka Professor Web, would love to hear your tips and questions on this subject or any other Webmaster topic. Address your e-mail to <professorweb@pobox.com>, but please remember, he can't personally reply to every message.

Introducing...

the MacAddict Collection

No self-respecting Mac addict should be without these essentials. These items are so cool that even your misguided PC friends will want to wear them. In fact, why not buy one for them as a gift?

MacAddict T-shirt

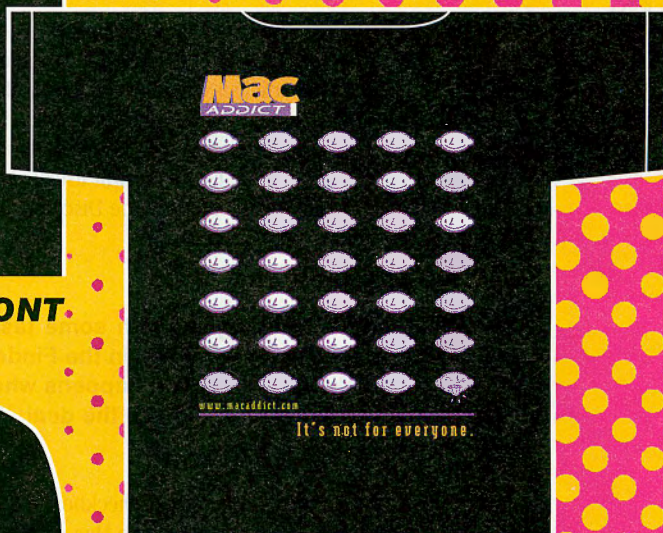
"It's not for everyone"

- short sleeve \$12
- long sleeve \$17

M, L, XL
(100% cotton)



FRONT



BACK

MacAddict Cap

(one size fits all) \$17

soft crown,
brushed cotton with
embroidered logo,
adjustable Velcro
backing



FRONT



BACK

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ask us

ask your questions

We answer all of your technical questions, (or at least the ones we know how to answer).

Q How do I get the neat utilities you're always mentioning in your column?

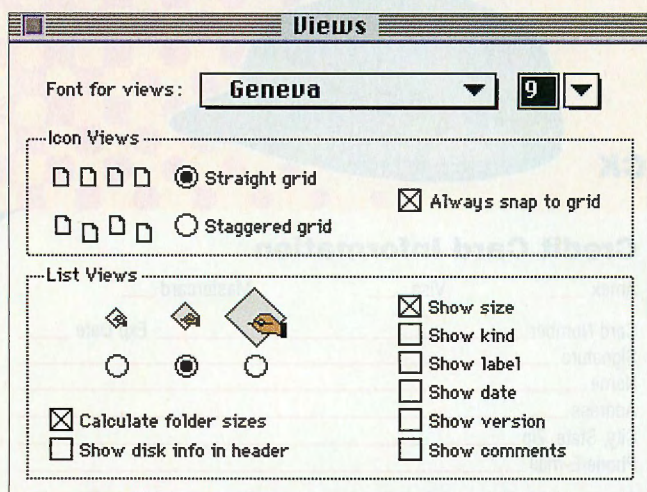
A See that funky lollipop-looking thingy on the left side of the page? That's the icon we use throughout *MacAddict* to indicate that something mentioned in the article is contained on the CD-ROM that comes with that issue of the magazine. In the case of this column, self-extracting archives of any freeware, shareware, or demos (not full-blown commercial programs) I mention will usually be found by double-clicking the This Issue folder on The Disc, then double-clicking the Ask Us folder.



FIND THE SHAREWARE and demos mentioned on The Disc.

Q My Mac seems preoccupied with some task that slows down the display of windows in the Finder and causes lots of disk activity. It even happens when I'm not running any applications. What's the deal, Jack?

A Make sure the "Calculate folder sizes" checkbox in the Views control panel is unselected. If it's selected, the Mac spends a lot of time adding up the size of files to display this information just below the title bar in each Finder window.



THE CALCULATE FOLDER SIZES option in the Views control panel can provide useful information, but it seriously slows the opening of windows in the Finder.

Q I get lots of e-mail and other documents that contain long URLs. Is there some way I can click an URL

to go directly to the Web page? It's really a pain copying and pasting these URLs into Netscape Navigator.

A Internet Config includes an extension called ICeTe that allows you to Command-click any URL (Uniform Resource Locator...you know, those cumbersome Web page addresses such as <http://www.macaddict.com>) and then automatically opens the browser of your choice and jumps to that page. Also, you can Command-click e-mail addresses and open your favorite e-mail program with an empty message addressed to the recipient—a real timesaver.

Q I have an LC 630 with an internal IDE hard drive. What are my limitations when upgrading this drive? Can I go to any dealer, buy a PC IDE drive, and expect it to work in my Mac after reformatting?

A Not being personally familiar with the LC 630, I spoke with the tech folks at FWB Software (415-463-3500, <http://www.fwb.com>), maker of Hard Disk ToolKit (HDT). They say that unlike most newer Macs and clones, the LC 630 doesn't support all the advanced IDE features, such as DMA (direct memory access), that would allow you to achieve higher data transfer rates. But if all you're really after is increased capacity, for the most part you should be able to buy a PC IDE drive as a replacement for your current drive. Once formatted with an IDE-aware formatter such as HDT, it should work fine with your Mac. Instead of replacing your existing IDE drive with a larger IDE drive, consider augmenting it with an external SCSI hard drive. Installation is easier, plus SCSI drives are more common in the Mac market, so you'll have a better selection from which to choose. More importantly, you won't be wasting the storage of your internal IDE drive, because there's no way to use it on your Mac if you replace it with a larger unit.

Q Most of the icons on my Finder desktop have gone generic (just a blank page with a dog-eared upper right-hand corner). Rebuilding the desktop with the shareware TechTool fixes the problem until I restart, then I'm back to generic icons. Also, my Apple menu has a few generic icons that come and go like the ones on the desktop.

A Many things can cause this sort of behavior. Because you state that "most" but not all of your icons are reverting to generic, I bet you

have multiple volumes or partitions, and that the icons which are going generic refer to files not on the startup volume. The Generic Icon Page (<http://www.public.usit.net/bgiles/genicon.html>) by Bruce L. Giles has a great deal of information on the various causes and solutions for this harmless but annoying problem.

In cases of multiple volumes, partitions, or removable disks, the problem is that the Finder is seeing documents and aliases, which don't contain icon resources, before it sees the creator or original applications, which do. This usually happens when a file is on the desktop and the application's volume or partition has yet to mount. Lacking the correct icon resources, the Finder substitutes the generic document icon.

The solution is to make sure that all the volumes or partitions mount during the startup process before the Finder launches. You can do so by using the freeware control panel called SCSIProbe or the commercial utility Now Startup Manager from Now Software (503-274-2800). A demo of Now Startup Manager is on The Disc or you can download one from <http://www.nowutilities.com/NU/nu65demo.html>.

Q I keep hearing from friends that I should defragment my hard drive. It does seem a little slow at times but otherwise functions fine. When I ask what utility to use, no one seems to be able to recommend one, and in fact, none of these people have ever defragmented their own hard drive. Is this necessary? Useful? If so, what utilities can you recommend for doing it?

A Defragging your hard drive essentially takes the bits and pieces that make up a single file but are scattered around on your hard drive and rewrites them into nice long contiguous blocks so that they can be read more efficiently. Once a file is defragmented, the drive's read/write head no longer has to seek out all the pieces scattered on the surface of the disk. Theoretically, this improves performance when files are read from or written to a hard drive, but in practice the improvement is hardly noticeable unless your drive was severely fragmented with little free space available. As for products to use, FWB's Turbo ToolKit (415-463-3500, <http://www.fwb.com>) contains a defragger called TurboDisk, Symantec's Norton Utilities (800-441-7234, <http://www.symantec.com>) has one called Speed Disk, and Alsoft (800-257-6381 or 713-353-4090) makes one called DiskExpress II. I've used all of them at one time or another and the main difference is that TurboDisk and DiskExpress work in the background during idle time, whereas Speed Disk must be run by itself with no other activity.

Q I have a Power Mac 7200/75 and a Sony Trinitron 15-inch monitor. Someone told me that the monitor will turn on, too, when I press the power button on the keyboard. Is that right? If so, how?

A The Power Mac 7200, like many modular Macs, has two power connectors on its rear. One is for connecting a standard power cord to a wall outlet so that the computer has juice to run, and the other can provide power to a second device, usually a monitor. When you press the power button on the keyboard or on the front of the Mac, both the Mac and the monitor should turn on (provided you've left the monitor on). To take advantage of this

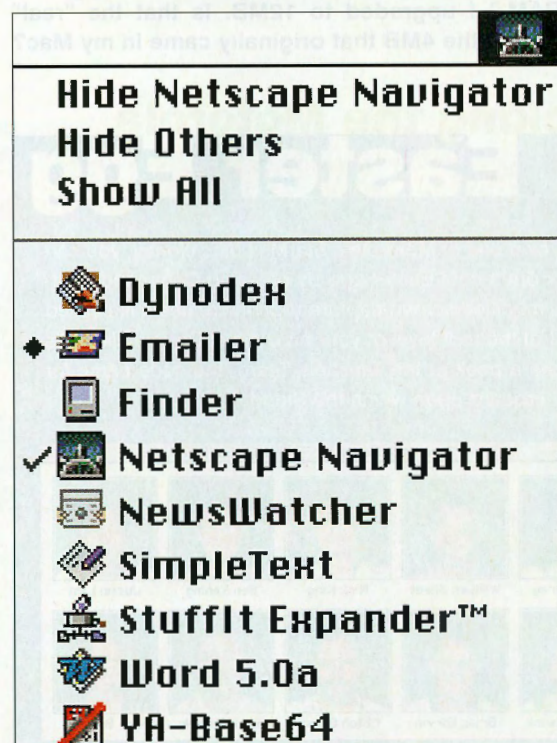
power source, you need a male-female AC power extension cord, available at your local Radio Shack (817-390-3200, <http://www.radioshack.com>), catalog #278-1259).

Q I'd like to help save a few trees in my lifetime, so I was wondering, is it safe to print on both sides of a piece of paper?

A Even though printer manufacturers (and the ever-popular despoilers of old-growth redwoods, the virgin paper industry) may discourage the practice, most printers have no trouble printing on a piece of paper that already has printing on the other side. I've been recycling old press releases for years, using the blank sides for printing draft copies of my documents. Aside from an occasional misfeed, I haven't had any serious problems, and the print quality is just fine for my needs. My advice: Try it and see if it works for you, too, but make sure you've completely removed all staples and paper clips, use only flat sheets (avoid paper that has been folded), and store paper in a cool, dry place to avoid curling.

Q Sometimes when I have several programs open at once, an icon in the upper right corner of the menu bar begins flashing. What does this mean?

A The right-most menu is called the Applications menu, and provides a handy way of switching from the application in which you're currently working to another application that's open in "the background." When the icon at the top of this menu begins flashing, it means a background application requires your attention (such as an e-mail program informing you that something has arrived). The icon



A FLASHING ICON in the Applications menu indicates that a background application requires your attention (the application is denoted by a diamond).

switches between that of your current application and any background application that wants your attention. If you can't identify the applications by their icons alone, pull down the Applications menu and choose any item with a small diamond to the left of its name.

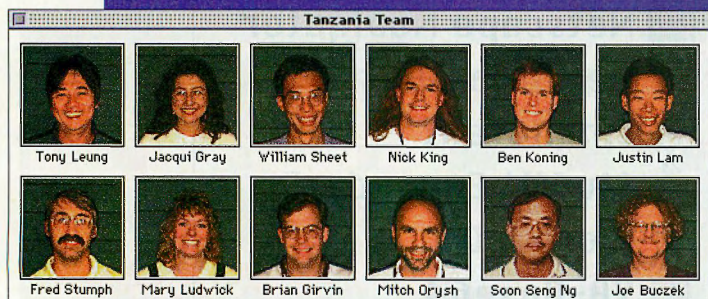
Q Recently my Performa 6300CD has begun making a buzzing noise that seems to be coming from around the floppy disk drive. If I tap my finger directly over the drive, the buzzing stops. Any clue as to what this may be?

A Assuming you don't have difficulty reading and writing floppies, my guess is the drive is fine and that the problem is a loose metal enclosure inside the Mac's case. This metal enclosure reduces the radio frequency interference, or RFI, that the Mac gives off. If you keep your monitor on top of your Performa, you might want to try repositioning it to see if that doesn't eliminate the buzzing noise. Or slide the case off your Performa and fiddle with any loose metal flanges you see near the floppy drive. Placing a bit of duct tape on any loose parts is OK as long as you don't block any air vents. (For hints on other useful things to do with duct tape—most of which are not computer-related—check out <http://www.octane.com/ducttape.html>.)

Q I have two questions, which I am somewhat embarrassed to ask because they seem so basic. I have a Mac LC III that still serves all my purposes wonderfully. But whenever I go to buy software, I'm confused by the system requirements. Specifically, I don't know what sort of processor is in my LC III. Also, some programs say they need a certain amount of "real RAM." I upgraded to 12MB. Is that the "real" RAM, or is it the 4MB that originally came in my Mac?

Cracking the Motorola Easter Egg

If you own one of Motorola's StarMax Mac clones, you can check out a cool Easter egg by pressing Command-Shift-T-3. This modified screen-capture routine creates a file called Picture 1 at the root level of your hard drive. Double-click this file to take a peek at the Tanzania Team (the code name for the motherboard upon which the StarMax is based).



THE MANY HAPPY FACES of the good folks who brought you the motherboard for the Motorola StarMax.

A There was a time when a dedicated Macaholic like myself could recite the product line and specs off the top of my head. Now, however, with the proliferation of Mac clones and Apple's absurd model naming scheme that defies logic, I've given up trying to remember this stuff. Instead, I rely on Guru, Newer Technology's Guide to RAM Upgrades freeware (on The Disc or 800-678-3726, <http://www.newertech.com>), which in addition to full information on how to upgrade memory also contains a wealth of ltechnical information about every Mac every made. According to Guru, the Mac LC III has a 68030 CPU running at 25MHz. So if something requires a "68020 or faster," you're covered. As for memory, real RAM is also known as "physical" RAM to distinguish it from the amount of "logical" RAM you can achieve through tricks such as turning on Virtual Memory in the Memory control panel or using Connectix's RAM Doubler 2 (800-950-5880, <http://www.connectix.com>). In your case, it sounds like you've added a single 8MB memory module to the 4MB soldered on the motherboard for a total of 12MB of real, hardware RAM. With the RAM Doubler 2 software, you could fool your Mac into thinking it has as much as 36MB of memory, but you still have only 12MB of real RAM.

Q I keep reading articles that refer to a Monitors & Sound control panel. I own a Performa 6200CD running System 7.5.5, and I have separate Monitor and Sound control panels, as does my friend with an LC III. Where can we get this newfangled Monitors & Sound control panel?

A The Monitors & Sound control panel is what certain AV (audiovisual) Power Macs use instead of separate control panels for each function. It can't be used on non-AV Macs, but that's OK, because it essentially does the same things as your individual control panels, just with a different interface. Actually, one thing you can't do in the Monitors & Sound control panel is record sounds. For that, you must use another application called SimpleSound, also part of the Mac OS.

Q Where can I get the latest System software for my Mac?

A The easiest way to get Mac OS 7.6 (the latest release as of this writing) is to call 800-742-1926 and place your order for the CD (\$69) or floppy (\$99) version. If you purchased a new qualifying Mac or clone after December 7, 1996, call 800-335-9258 to purchase the CD version of the U.S. English update for the cost of shipping and handling (\$24). If you don't need the very latest, you can download System 7.5.5 from the Internet (<http://www.info.apple.com>) or use the installer that's included on the MacAddict disc.

Owen W. Linzmayer (askaddict@aol.com, <http://www.netcom.com/~owenink>) is a San Francisco-based freelance writer and the author of(i) The Mac Bathroom Reader. Please submit technical questions or helpful tips directly via e-mail or c/o MacAddict, 150 North Hill Drive, Suite 40, Brisbane, CA 94005.

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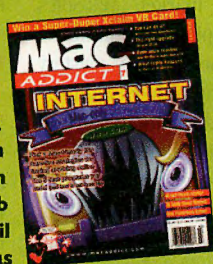
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MacAddict's Web site at www.macaddict.com is the best place to get help. That's where you'll find the latest information about the Web sites, hardware, software, and other topics in MacAddict. You'll also find helpful tips for using your MacAddict CD-ROM, along with direct e-mail links for immediate access to all of the services mentioned on this page. From our Web site, you can send e-mail to our editors and get the latest MacNews. You'll find a wealth of tools and special features not available anywhere else.

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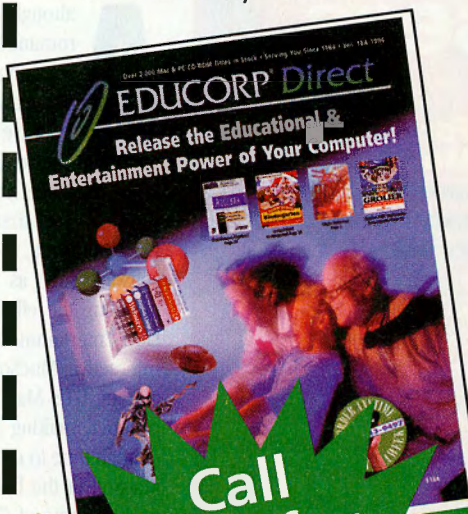
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powerplay

Through alliances and mergers, MacSoft emerges as a Mac gaming force.

Teasers



Formula T2 for Macintosh

COMPANY: Thrustmaster
CONTACT: 503-615-3200,
<http://www.thrustmaster.com>

Do you feel the need, the need for speed? Put your pedal to the metal with Thrustmaster's Formula

T2 controller. The luxurious foam-rubber steering wheel clamps onto your desk and has a gearshift and dashboard buttons, while the accompanying brake and accelerator unit goes on the floor. We used the controller with Sierra On-Line's Indy Car and NASCAR Racing titles and kept racing even after we crossed the finish line.



F-16 FighterStick

COMPANY: CH Products
CONTACT: 619-598-2518,
<http://www.chproducts.com>

So you've flown just one too many missions over

the Pacific and have worn out your FlightStick? What's a flight sim gamer to do but get CH Products' new F-16 FighterStick, with 24 programmable buttons, including one eight-way switch, rotary throttle and trim controls, and more. Add on the Pro Throttle to get 48 different functions.



Blackhawk

COMPANY: Advanced Gravis
CONTACT: 800-663-8558,
<http://www.gravis.com>

If the F-16 is too big a stick for your smaller

hands (it was designed to be just like the ones in fighter planes), try the Blackhawk. With its ergonomic curves, you won't slip or slide as you wing your way to victory. In addition, the Blackhawk is completely compatible with MouseStick II settings.

Although MacSoft's genesis was not the romantic image of two kids in a garage cranking out code, this Mac publisher has grown from focusing on affordable software at the low end of the market to pursuing the entire home market. MacSoft's ventures range from developing titles in-house such as the first-person-perspective mystery Prime Target to publishing other vendors' software such as Varcon's Absolute Solitaire to directing the efforts of porting houses such as Lion Entertainment. Since being acquired by GT Interactive, MacSoft has had the responsibility of guiding GT's Mac games from inception to final product, making sure the porting houses have enough time to create true Mac games. With MacSoft at the helm, no game will end up like some of GT's previous efforts, such as Doom, which didn't even let you customize the controls.

In addition to making them desirable to Mac gamers, MacSoft has the difficult task of selling these games into a channel increasingly hostile to anything Macintosh. Fear not. MacSoft is run by a team of hard-core Mac fanatics, who are doing their best to evangelize the platform (and increase their shelf space in stores). If you doubt MacSoft has the gumption to pull it all off, you were not in Minnesota last winter toiling away under a leaky roof. To get a sense of MacSoft's future direction (besides repairing the roof), *MacAddict* spoke with Peter Tamte, MacSoft's vice president and general manager.



Peter Tamte

MA: What can we expect from MacSoft this year?

PT: Of GT's titles, you'll see Quake for Macintosh arriving in April and Duke Nukem 3D in the summer. We also have Shadow Warrior coming in the late summer or early fall, and we're planning on releasing Unreal in the fall. In addition to these GT Interactive titles, we've been working on a deal for about six months that has culminated in our publishing Microprose's titles for the Macintosh. This includes Civilization II,

Top Gun, Falcon IV, Master of Orion II, and Magic the Gathering. Civ II has been one of the top five performers on the PC, and I think it's even more ideally suited to the Mac market: The Macintosh customer is generally more highly educated and is into thinking games.

MA: Why did GT give you its Mac titles?

PT: GT recognizes that the best way of getting the best products into the Mac market is to have a bunch of Mac fanatics do it for them. That means not just Mac fanatics at the porting house but Mac fanatics inside the company, who are going to push the product right and are going to make sure that everything just works as the Macintosh community expects that it would. The Mac market is spoiled by higher quality and better attention paid to interface design.

MA: Are there specific things you want in the ports?

PT: We really make efforts to make the Macintosh port as ideally suited to the Macintosh audience as possible. We try to use the Mac interface conventions. We also try to give Mac users something special that they don't get in the PC version, and then we optimize performance for the Mac so that you get better performance than you would on a PC.

"Mail order is bad for the Macintosh home business."

MA: So after you produce a great title, how do you get people to buy it?

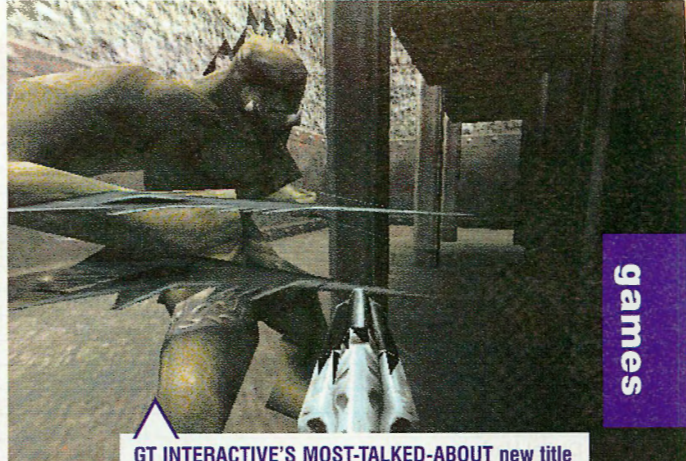
PT: There are definitely different market dynamics when selling into the Macintosh market rather than in the PC market. One of the things that will help us out a lot in realizing better volume from our products is that we are focused solely on the Macintosh in our group. So that means the ports will be of higher quality when we are porting. And we can do a more extensive job with the public relations and marketing than when [a title is] coming from a developer that's focused on the PC.



WHAT'S WRONG WITH THIS PICTURE?

That's right, it's a Windows screenshot. All of you who have been harassing Microprose about its (nonexistent) Mac support can stop—MacSoft's got it under control.

SURE, MACSOFT LICENSED THE ENGINE from Bungie Software Products, but it also completely upgraded gameplay, in addition to creating all-new maps and shapes. Can you find it on a PC? No.



GT INTERACTIVE'S MOST-TALKED-ABOUT new title this year, Unreal, will be brought to the Mac under MacSoft's direction.

MA: Will you be developing more Mac-first, Mac-only titles?

PT: Mac-only, Mac-first titles are critical to the Macintosh market. That's one of the things Steve Jobs said in the keynote speech at Macworld. He said, "We've got to start providing solutions that customers can only get from Apple." A part of our efforts to do that were Prime Target and Damage Incorporated. Both of those are games that are definitely Mac first and offer a different type of playing experience from what customers can get on a PC. In the productivity category, we're also being very aggressive with our 3D Home Designer and Desktop labeling package. There are tons of features that you simply can't get in comparable PC products.

MA: What are some problems with Mac-first, Mac-only products?

PT: Getting them into distribution. Catalog sales are profitable on the high-end side, but that's not as true on the home side. Many companies see about 30 percent mail-order sales and 70 percent retail. We are seeing right now about 5 percent of our sales through mail order and 95 percent through retail.

MA: That sounds deliberate.

PT: Mail order is bad for the Macintosh home business, because it means smaller Mac sections in the stores. This, in turn, means customers think there's less Mac software out there. In addition, [mail order is] very economically nonviable for home-oriented publishers, because the costs of doing business through mail order are much higher than the costs of doing business through retail. If you walk into CompUSA, you'll actually see more home-oriented Macintosh software than you will in the MacWarehouse catalog, and you'll also see those products at a lower price than you'll see in MacWarehouse.

MA: Most people think it's just the opposite.

PT: There's a perception in the Mac market—which is really dangerous for the home side of things—that the way to buy software is through mail order. A lot of us are going to be moving away from mail order in the next few months because of the economic problems of doing business through the mail-order channel. I have to look at how many incremental sales we get by selling through mail order versus retail, because much less of the dollars a customer spends makes its way back to us than when the customer buys at a retail store.

MA: So as a Mac evangelist, you'd recommend buying games at retail?

PT: Absolutely right, and that's going to become critical to the success of Macintosh during the next 9 to 12 months, because the retailers are taking a *really* hard look at their Macintosh software sections because of the poor performance for Macintosh during the fourth quarter [Apple's fiscal first quarter]. Unless people want to see their software selections go away, they've got to go in and buy software from them. Companies that are really supporting Macintosh right now are CompUSA, Computer City, Best Buy, Office Depot, Fry's, and Microcenter, to name a few.

MA: Is Apple doing anything to help you?

PT: Apple has finally realized that it has a real problem in retail and is looking at ways of changing the environments inside the stores. We're going to see Apple working harder with the retailers to improve the [sales] of software in the Macintosh software sections and to ensure that the top 20 games, for example, are available in all the stores. It hurts us to go into the stores and to see a great game on the PC and not available on the Macintosh, and that's really what drives us to find ways of bringing those programs to the Macintosh. —Kathy Tafel

Spoilers



FIND a Marathon Infinity demo, Marathon maps, and cheats on The Disc.

This is Imagine Publishing. Memorize the floor plan...

You asked for it, you got it. We've assembled the greatest collection of Marathon Infinity maps, tweakers, and cheats you'll ever find on one CD-ROM. In addition, we've even decided

to finish that *MacAddict* map we've been talking about for so long. OK, so it's network-only because it was too hard to add termi-



...or you'll be dust when you are transported into the real thing.

nals, a story line, and more stuff while we were busy with other work, such as playing the game. David Reynolds, the mapmaker, coaxed the actual blueprints of Imagine Publishing's floor plan out of our facilities manager, so the scenario is more true to life than ever before possible. We even managed to wrangle some tips from the master on how to make your own maps.

Of course, you'll need Marathon Infinity to get the level editors. Once you get it, be sure to go through the tutorial movies. Learn about polygons right away—which ones make good and bad shapes. Be sure to observe the limits of the number of polygons, edges, points, and so on. We ran up to the limit of polygons—1,024—and had to modify the map to make up for it. One last thing: Be sure to save your work often; we ran into Type 11 errors.

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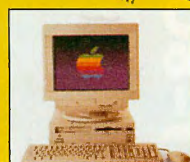
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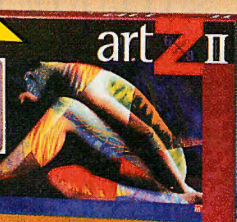
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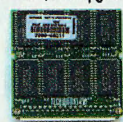
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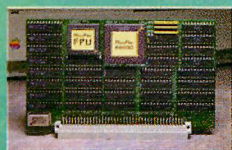


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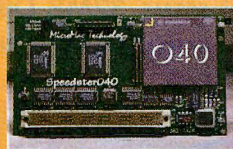
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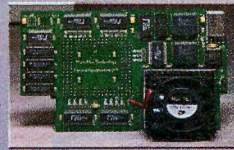


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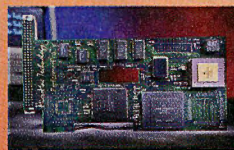


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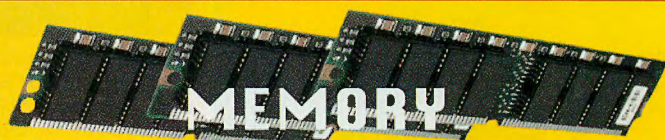
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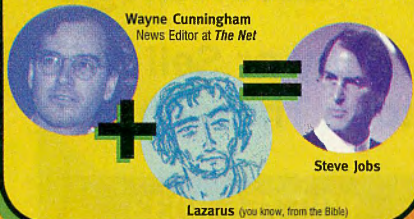


shut down

shutdown

Megamerger 3

Steve Jobs recently returned to Apple as part of the company's high-profile buyout of NeXT Software. While we congratulate Steve on his triumphant return to the spotlight, we were almost blinded by his glaring similarities to the following historical figures:



TWO-FACED

"We don't think of it as a Windows interface or a Mac interface, but as a Microsoft interface," says Robert Crissman, product manager for FrontPage, Microsoft's Web site management tool. Gee, we knew there was another way to describe cross-platform mediocrity, but we just couldn't put our finger on it.

If You Can't Beat 'Em, Join 'Em.

In our previous review of the PowerBook 1400, we listed



Apple's laptop as running on a 603e chip. After seeing this ad for RCS Computer Experience in *The New York Times*, we realized that we were wrong, and we apologize for the error. Either that, or ad designers just forgot to add the words "Better than" before the word "Pentium." (Thanks to reader Andy Brunetto of Earlysville, Virginia, for catching this slip-up.)

TOP 10 REASONS

VR Baseball Didn't Ship on Time

(This is according to a VR Sports press release that was so funny we didn't even need to add our own jokes.)

- Marketing is complaining there isn't enough blood and guts in the game.
- An EA virus has been detected in VR Baseball which causes players to purposely throw a game.
- Have not been able to get the game to boot since implementing the "Players' Strike" feature.
- Two words: Nomo Mania.
- There was a setback in testing because many of the testers were using illegally corked joysticks.
- It takes way too many polygons to represent major league umpires.
- Stupidly hired "Codeless" Joe Jackson as lead programmer.
- Many programmers were found aimlessly roaming through corn fields saying, "If you program it, it will crash."
- Programmers and artists can't continue without a collective bargaining agreement.
- Took too long to abandon the "We can save money by using old source code from Pong" theory.

Sticky Business

In a major upgrade of its lucrative Post-it Note line, 3M recently introduced printable Post-it Notes that come six to a page and can be run through a printer multiple times. Now you no longer have to bother with the quick convenience of just jotting down your notes with a pen. Can we pay extra?

Striking Out

"Together we can send a message to the AOL brain-donors who came up with this scam that we will not succumb to this ridiculous idea. That we will not pay ransom money to keep THEIR PAYING customers happy. That we will not go quietly into the night!" This fiery quote came from a strike letter circulating the Internet in February in response to America Online's decision to soak companies that provide service support via AOL for an annual fee of \$55,000. Obviously, the note was penned by the only person in the world who hasn't already figured out that AOL sucks.

JUST FOLLOWING INSTRUCTIONS

Life's Little Instruction Book lists 511 suggestions for leading a happy and rewarding life. Number 393: "Learn how to operate a Macintosh computer." That's nice of them, but shouldn't learning the Mac be listed as Number One? (Thanks to reader John Willis of La Mesa, California, for the tip.)

Mythical Man Month

Employees at IBM, Apple, and AT&T (combined) visited *Penthouse* magazine's Web site 12,823 times in a single month last year, according to an analysis by Nielsen Media Research. Based on an average visit of 13 minutes, that breaks down to more than 347 eight-hour days, or almost 18 working months. Umm, maybe it was the first annual *Penthouse* "technology" issue, and they were all just reading it for the articles. Yeah, that's it.

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Doodle by Mark Simmons

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